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THE PENNSYLVANIA STATE COLLEGE

The Graduate School

Department of Political Science

The Rural Electrification Administration and Its Work in Pennsylvania

A Thesis

By

Alvin E. Heutchy

Submitted in partial fulfillment for the degree of

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Approved:

Date: July 26, 1938 — John H. Ferguson, Department of Political Science

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INTRODUCTION

Electricity is still unavailable to a majority of American farms and rural communities. Compared with the other forty-eight states, Pennsylvania ranks sixteenth in the number of farms served with electricity; however, in 1935, less than one-fourth of the farms in Pennsylvania enjoyed the benefits of electricity. An impetus was given by the establishment of the Rural Electric Administration in 1935, and in the keystone state today there are seven rural electric cooperative undertakings designed to serve approximately 8,000 customers.

The first part of this thesis reviews the history and development of rural electrification, and a comparison is made between rural electrification in the United States and other parts of the world. The second part deals with the activity of the REA in Pennsylvania. The literature concerning the general subject of rural electrification is profuse, but there is little dealing specifically with Pennsylvania. In view of this deficiency, the data herein presented relating to the rural electrification projects now in operation or in progress, was obtained by questionnaires and personal visits to each of the projects.

CHAPTER I

DEVELOPMENT OF RURAL ELECTRIFICATION

The first central steam-operated electric generating station in the world, known as the Pearl Street Station, began operating on September 4, 1882. Lighting was the only service performed; it furnished fifty-nine customers in a small territory in downtown Manhattan, New York. The incandescent lamps used by the customers were only one-sixth as efficient and had one-fourth the life of those today. The first hydro-electric station was placed in operation at Appleton, Wisconsin, on October 15 of the same year. Its capacity was for two hundred fifty sixteen-candlepower incandescent lamps.[1]

The first rural electrification probably took place in the state of California. In 1900, John Martin, one of the founders of the Pacific Gas and Electric Company, introduced an electric irrigation pump on a farm in Yuba County, California. The farmer being skeptical, the company installed the pump, payed all costs and guaranteed satisfaction. It was a success, and soon electricity was in common use in the vicinity. California was favorable for pioneering in the electric power field because its mountain streams could be used to generate hydroelectric power and the presence of many rich cities provided a profitable market. In 1923, there were 23,064 electrified farms in that state. In 1935, 81,000 farms, or about fifty-four percent of the farms in California, were served with high line power.[2]

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1. Schaener, J. P. Rural Electrification, New York: The Bruce Publishing Company, 1935, pp 3-4.
2. Coyle, David Cushman. Electric Power on the Farm, Washington, D.C.: United States Government Printing Office, 1936, p 6.

Between 1909 and 1921, private companies took an interest in the development of rural electrification, especially along the Pacific Coast, in the Middle West, and in Wisconsin; although in general they were slow to enter a field where operations yielded less profit than in the more populated areas. In 1909, the Puget Sound Power and Light Company built the first electric plant devoted exclusively to the generation of current for agricultural purposes. The Middle West Utilities System, in 1912, set up a rural policy which aimed at serving only compact groups of small towns, believing these to be the only rural customers who could be served profitably. Between 1916 and 1921, the California-Oregon Power Company increased its agricultural power sales 535 per cent, and increased the number of rural customers 31 per cent. In 1917-18, the Northern Iowa Gas and Electric System linked together several small rural systems. The average number of customers per mile in the project was 31.5, which today is not considered a strictly rural load. In 1920, the Wisconsin River Power Company launched a valuable experiment in the form of a rural electrification program with only 2.6 customers per mile, and the cost per mile of line was $826. Although these were private undertakings, private enterprise was generally reluctant to enter the field, and was often intolerant of rural attitudes and interests.

During this same period (1909-1921), electric cooperative societies were also engaged in the distribution of electric energy. The first rural electric cooperative was organized in Wisconsin during this period chiefly because private enterprise was reluctant and slow to enter the field. A group of twenty-five farmers organized an electric cooperative association, built their own lines, and bought their power wholesale. Their margin of

profit was occasioned by increased span lengths, thus requiring fewer poles and appurtenances. In 1920, the Reclamation Service Plant, owned and operated by the Federal Government, served electricity to a farmers' mutual cooperative operating 265 miles of line in southern Idaho.[3] In the same year, various Ohio groups built cooperative lines and then turned them over to private companies to operate. These were but a few of the attempts of the farmers to try to obtain electricity at a rate which they could afford to pay.

Rural electrification received a stimulus when early in 1923, the Committee on the Relation of Electricity to Agriculture was formed, partly as a result of agitation which started in Pennsylvania. It was composed of twelve members, three of whom were officers of the American Farm Bureau Federation, four were representatives of the National Electric Light Association, and one representative from each of the following: American Society of Agricultural Engineers, manufacturers of farm electric plants, and the United States Departments of Agriculture, Interior, and Commerce. The Farm Bureau Federation withdrew from the Committee in 1934, and the Federal Government representatives resigned in 1935.[4]

Meanwhile, the Department of Agriculture had been busy in research work upon a survey of uses of power on farms in the United States. The results of this survey were published under the direction of C. D. Kinsman in 1925, and was known as the National Farm Power Survey. Another bulletin

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3. This cooperative initiated the policy of having customers read their own meters by placing the hands of the meter in the correct position on a post card supplied for the purpose.
4. Coyle, op. cit., p 62.

was issued in 1933, supplementing this survey.

Public attention was called by this study to the many uses to which electric energy could be put on the farm. For example, in 1800, seven out of ten American workers were on farms; only one out of ten was available for all the other work of the nation. Today, only two out of ten workers are on farms. Kinsman points out that part of this exodus from the farm has been the increasing availability of power from sources other than human labor. The average farm worker in 1850 had 1.5 horsepower to help him; in 1923, he had 4.5 horsepower; and by 1930, 6.7 horsepower per worker. Likewise, average production per farm worker showed a steady increase from 1850 to 1930. The amount of power used on a farm reached tremendous proportions. Besides human labor in 1925, agriculture employed 47,000,000 horsepower units of energy. This was twice as much power as was used in all manufacturing and was exceeded only by the power used in transportation. The cost of this agricultural power was approximately three billion dollars. But, of the 47,000,000 horsepower used on the farm in 1925, only 2,000,000, or four per cent, was accounted for by electricity, and 2,194,000 horsepower, or 3.1 percent, of the 70,502,000 horsepower available on the farm in 1930, was derived from electricity. Electricity as a source of power on the farm was in a declining stage during the first half of the present decade.

Rural electrification at the hands of the private power industry went forward very slowly during the years 1924 to 1934. The Edison Institute has made up the following table showing the progress of rural electrification

during that period:[5]

NUMBER OF FARMS AND RURAL DWELLINGS SERVED NOT INCLUDING INDIVIDUAL LIGHTING PLANTS

1924	204,780	1929	576,168
1925	246,150	1930	649,919
1926	309,125	1931	698,776
1927	393,221	1932	709,449
1928	506,242	1933	713,558
		1934	743,954

The largest number of farms electrified in one year was approximately 113,000. In no other year did the number of farms electrified run over 90,000 farms. During the depression, the number fell as low as 4,109 farms, or rural dwellings, electrified in one year. For the duration of this period, the average number of farms or rural dwellings electrified every year was 49,015.8.

The 743,944 farms electrified at the beginning of 1935 represented only 10.9 percent of the farms in the United States, and only twenty-seven percent of the rural dwellings of one hundred fifty inhabitants or less. This condition greatly retarded the modernization of farms and rural communities. Of the 32.7 million people in this country who live on farms, it has been ascertained that:[6]

73 percent must carry water from wells or other sources of supply;
77 percent must put up with unsanitary, inconvenient, out-door toilets;
93 percent have neither bathtubs nor showers;
76 percent must depend upon kerosene or gasoline lamps; apparently about 10 percent use candles or are entirely without light;
33 percent heat their homes partially or entirely with fire places and 54 perpent with stoves;
48 percent are compelled to do their laundry work out of doors.

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5. Coyle, op. cit., p 69.
6. Monthly Labor Review, Washington, D. C.: Bureau of Labor Statistics (U. S. Government Printing Office), XLIII, No. 3, September, 1936, 55.

Such appliances as electric toasters, washing machines, mangles, fans, and refrigerators, now so essential to confortable living, could, in 1935, be found in less than one out of ten American farm homes.

The backward state of rural electrification in the United States is strikingly shown by comparison with foreign countries. In the province of Ontario, twenty percent of the rural population had electricity available in 1935, as compared with 10.9 percent in the United States. This, in spite of the fact that there are only one-fifth as many people per square mile (8.4) as the average in the United States.[7]

On the continent of Europe, rural electrification has made much progress. France, at the beginning of 1935, had ninety-three percent of all her communities served, including ninety-one percent of the rural communities. The French government has assisted 25,093 of its 38,004 political subdivisions to procure electricity. In Germany, fifty-three percent of all electricity used comes from plants jointly owned by private and public interests, and only twelve percent from privately owned utilities. Her rural areas are served by 5,000 cooperative societies. Switzerland is 100 percent electrified with sixty-five percent of its electric energy coming from publicly owned plants. Private power utilities are discouraged by granting government subsidies to enterprises, sixty percent of whose capital is publicly owned. Holland's 234,000 farms are all served with electricity by plants owned by the public. Rural and urban areas are served at the same rate, the costs being averaged over all

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7. This Province has the world's largest publicly owned power plant with an output of nearly seven billion kilowatt hours in 1934. The "Hydro" operates on a cost basis system. Year by year equity accumulates and this is turned back into the municipalities. Coyle, op. cit., pp 73ff.

the territory. Belgium is completely electrified. The task here was not difficult because of the density of population (700 persons per square mile).

In the Scandinavian countries rural electrification has also progressed much farther than in the United States. In Sweden, sixty-five percent of the agricultural area is electrified. In Norway, fifty-five percent of the rural population receive electricity, and in Denmark it has been estimated that 85 percent of all houses and farms in rural areas have electric service. This advance has been achieved to a large extent through the device of electric cooperative associations. In Sweden most of the distribution lines have been built by farm cooperatives with the assistance of small loans from the government. Electricity is generally bought at wholesale from publicly owned and a few privately owned generating plants and distributed under cooperative management. In Denmark, cooperatives organized by farmers engage in almost every type of activity including the production and distribution of electricity. In Norway, the laws of the country have discouraged private utility companies with the result that only five remain in existence as compared with 322 owned by district and municipal governments. More than ninety percent of the total capital invested in Norwegian electric utilities is publicly owned.

Several islands in the Pacific have made rapid strides in rural electrification. New Zealand has a sparse population per square mile (15), but it has been estimated that about two-thirds of the rural population have electricity. Government subsidies have been responsible to a large extent for this progressive condition of rural electrification.[8]

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8. Despite the small industrial load, the average consumption per customer is 2000 kilowatt hours per year.

Another small island, Tasmania, has made great strides in rural electrification despite a population density of eight people per square mile. Approximately seventy-five percent of its people have electricity and its rural areas are extensively served. Even Australia, with a land area almost as great as the United States, but with a population only one-twentieth as large (population density is two persons per square mile), has made considerable progress in rural electrification in several of her states, notably Victoria and New South Wales. North of Australia lies the island empire of Japan, usually considered to be backward as far as western civilization is concerned. However, 11,400,000 out of a total of 12,700,000 homes, representing ninety percent of the households in this country, are electrically lighted.

Rural electrification has not been difficult in some foreign countries because of the density of population. Others, however, have not been so densely populated and still have attained a high degree of rural electrification. It is significant to note that in all the countries studied, public ownership and governmental subsidies seemed general.[9] Private capital has been reluctant to enter the field of rural electrification in general, so, in many countries rural areas have been supplied with electricity by the cooperative method.

In view of the unlimited natural resources and technological achievements made in America, how can the backwardness in rural electrification be explained? There are a number of reasons. In the past, private utility companies have considered the farmer a small domestic customer who could

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9. Coyle, op. cit., pp 72-83.

not be served except at a loss or small margin of profit. Furthermore, construction costs have been high. The following chart shows the cost per mile of line charged by the different private utility companies in different sections of the country:[10]

Section	Cost per mile[11]
New England	$1540
Middle Atlantic	$1458 to $1782
South Atlantic	$1410 to $2174
East North Central	$1447 to $1850
West North Central	$1616 to $2119
East South Central	$1550 to $1870
West South Central	$1575 to $1637

A third reason for the backward state of rural electric service is to be found in the excessively high and complicated rate schedule which most of the private utility companies use. A comparison between private utility rates and those used by the Tennessee Valley Authority is revealing. The TVA schedule runs as follows:

Monthly use (kwh)	Net per kwh
First 50	3¢
Next 150	2¢
Next 200	1¢
Next 1000	0.4¢
Next 1400	0.75¢

Minimum Monthly Bill - 75¢

How different is the monthly rate schedule of the typical modern private utility company:

Item 1: a monthly charge to cover meter expense, billing, etc.
Item 2: a service line charge of 0.5¢ per foot for the excess over 200 feet of service line, the said line consisting of wires, poles and other necessary accessories.

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10. Swanson, Melvin O., "Rural Electric Distribution Lines", Rural Electrification News, Washington, D. C.: U.S. Government Printing Office, I, No. 4, December, 1935, 4-5.
11. This cost includes all appurtenances to the line.

Item 3: a transformer charge for the size of the transformer that is provided where the customer is to be served exclusively from a transformer.
Item 4: a pole line charge determined by multiplying the consumer's monthly billing demand by the value of the demand miles of line.
Item 5: a demand charge of between $1.50 and $2.00.
Item 6: an electricity base rate of 2.9¢ per kwh for all electrical energy used in a month.

Thus, the schedule would be as follows:[12]

Monthly Use (kwh)	Net Monthly	Average Rate per kwh
0	$12.20	———
40	11.36	28.40¢
100	13.10	13.10¢
150	18.00	7.6 ¢

Need for rural electrification has impressed itself upon many thoughtful Americans. A tremendous stimulus was given to public ownership and rural electrification by the election of Franklin D. Roosevelt to the Presidency of the United States in 1932. President Roosevelt had long been an advocate of cheaper electricity, particularly for the farms. He advocated the expansion of rural electrification as Governor of the State of New York, and during the Presidential Campaign of 1932, in a speech at Portland, Oregon, he said:

> "It [electricity] turns the wheels of our transportation and our factories. In the home it serves not only for light, but it can become the willing servant of the family in countless ways. It can relieve the drudgery of the housewife and lift the great burden off the shoulders of the hard working farmer.
>
> "I say, 'can become' because we are most certainly backward in the use of electricity in our American homes and on our farms . . . .
>
> "What prevents our American people from taking full advantage of this great economic and humane agency?

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12. Zarder, H. "Two Rural Rate Schedules — A Study in Contrasts", Rural Electrification News, I, No. 4, December, 1935, 6-10.

"The answer is simple. It is not because we lack undeveloped water power or unclaimed surpluses of coal and oil.

"The reason that we cannot take advantage of our possibilities is frankly and definitely because many selfish interests in control of light and power industries have not been sufficiently far-sighted to establish rates low enough to encourage widespread public use."[13]

President Roosevelt, speaking on August 4, 1934, at the Bonneville Dam in Oregon, said:

> "While we are improving navigation by the dam we are creating power and I always say 'More power to you'. I don't believe that you can have enough for a long time to come, and the power we are developing here is going to be controlled by the government.
>
> "Two years ago when I spoke in Portland I said the principle of government needs yardsticks so that the people in this country will know whether they are paying the proper price for electricity of our times . . . .
>
> "And then the last reason of all, which I conceive to be of vast importance, is the fact that in this northwest section of our land, we still have the need of a vastly increased population."[14] [Due to the power generated.]

The next day President Roosevelt reiterated his views on power at the Coulee Dam in Oregon. He said:

> ". . . we are going to see, I believe, with our own eyes, electricity and power made so cheap that it will become a standard article of use, not only for agriculture and manufacturing, but also for every home within reach of an electric light line.
>
> "The experience of those sections of the world that have cheap power proves conclusively that the cheaper the power the more of it is used . . ."[15]

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13. New York Times, New York: New York Times Company, LXXXII, No. 27,270, September 22, 1932, 16.
14. Ibid., August 4, 1934, p 3.
15. Ibid., August 5, 1934, p 3.

Since President Roosevelt's election in 1932, rural electrification has been promoted chiefly by the formation of the Tennessee Valley Authority and the Rural Electrification Administration. The avowed purpose of the Tennessee Valley Authority Act of May 18, 1933, was: "to provide the navigability and to provide for the flood control of the Tennessee River; to provide for reforestation and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley; to provide for the national defense by the creation of a corporation for the operation of Government properties at and near Muscle Shoals in the State of Alabama, and for other purposes."[16] There can be no doubt that the Tennessee Valley Authority has done much to bring cheap light and power to the farmers in the Tennessee Valley region.

The Rural Electrification Administration was established by Executive Order on May 11, 1935, under the authority of the Emergency Relief Appropriation Act of 1935. The Administration was set up "to initiate, formulate, administer, and supervise a program of approved projects with respect to the generation, transmission, and distribution of electric energy in rural areas."[17]

The REA had nothing to guide it in the performance of its tasks for there was nothing mentioned in the Emergency Relief Appropriation Act other than its general policy and the duties of its Administrator. As the private utility companies owned most of the electric utility properties, the REA called a meeting of the executives of these companies (seventy-five percent of them) in Washington, shortly after the Executive Order

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16. U.S. Stat. L., XXXVIII, Part 1, 58.
17. Executive Order No. 7037 - Establishment of the Rural Electrification Administration - May 11, 1935.

was issued, to discuss a tentative program. From this conference grew a committee of utility representatives whose duty it was to connect the private utility industry with REA. A conference of the managers of the municipal electric utilities was also called in the latter part of May, 1935, to discuss the power problem. The one large difficulty brought out in this discussion was that in many states, statutes prohibited the extension of municipal lines beyond their corporate boundaries. It was thought the difficulty could be solved by bringing the farmers' lines to the "gates" of the city, and then connecting them with the municipal system. A third conference was held with the cooperative leaders of the nation because it was anticipated that some money would be loaned to cooperative projects.

In the meantime, the private utilities were conducting a nation-wide survey. From the study, the Committee of Executives of the private power industry, planned during the summer of 1935 a program which included the expenditure of $238,240,000 for connecting and equipping a total of 351,000 rural prospects, including 247,000 farmers.[18]

Because of the impetus given the rural electrification move during 1935, the first six months of 1936 saw farm connections higher than for any twelve month period since 1929. Mr. Morris L. Cooke, the Administrator of REA at that time, believed that because the private power industries supplied ninety percent of the national power service, the REA should loan to them ninety percent of the first $100,000,000 allotted, provided the private utility companies would agree to certain reasonable conditions such

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18. Coyle, op. cit., p 92.

as area service without "cream skimming", simple schedules, elimination of high demand charges, economical construction, and sale of current to cooperatives when asked.[19]

The private utilities at first cooperated with REA, appointing the aforementioned committee and conducting the survey of the possibilities of rural electrification. They reported on July 24, 1935, that, "in cooperation with REA, we believe the privately owned utilities can absorb the full $100,000,000 available under the Work Relief Appropriation Act for construction of additional rural facilities."[20]

But in the surveys conducted, Mr. Cooke found an innocent little phrase which he thought might lead to disastrous results if agreed to. This phrase read, "The problem of farmers is not one of rates, but of financing the wiring and purchase of appliances."[21] The Administrator would not agree to such a phrase, but he was hopeful that the difficulty could be straightened out. As yet no agreement has been reached.

In January, 1936, the Norris-Rayburn Bill for Rural Electrification was introduced into Congress. Senator Norris, it was revealed by the bill, was opposed to lending REA money to private utilities. He was quite certain that the task would take $100,000,000 a year for a period of years if the job was to be done well, and also that the farmers should be allowed to form their own organizations. Administrator Cooke, with a majority of his staff, stated that "there should be no duplication or competition; that there should be no extensions of municipally owned lines

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19. King, Judson. "The REA - A New Deal Venture in Human Welfare", Public Utilities Fortnightly, Baltimore, Maryland and Washington, D.C.: Public Utility Reports, Inc., XXI, No. 7, March 31, 1938, 399-403.
20. Ibid., pp 399-403.
21. Ibid., pp 399-403.

or cooperatives built in areas already served by private companies; that REA should do no promotional work; and that forty to fifty million dollars annually would be sufficient."[22]

The Rural Electrification Act, as finally passed on May 20, 1936, provided a means by which rural electrification in the United States could become an accomplished fact. The Administrator (by the sections of the act) is appointed by the President of the United States for 10 years at $10,000 per year, and it is his duty to make loans to the different subdivisions for the purpose of rural electrification. The Reconstruction Finance Corporation is to make loans to the Administrator for the fiscal year ending June 30, 1937, up to $50,000,000 at three percent. Forty million dollars is to be appropriated yearly from the United States Treasury for the fiscal year ending June 30, 1938, and for each of the eight years thereafter for the purposes of the act. Fifty percent of the sums appropriated is to be allotted yearly to the states in proportion to the number of farms not then receiving central station service bears to the total number of farms in the United States not then receiving such service. The other fifty percent is available to the states and territories without regard to proportional allotment, providing, no more than seven percent is used in any one state, or in all the territories. If a part of one year's loan is not used, it is available for use in succeeding years, providing that no more than ten percent is loaned to any one state, or all the territories, and that no money is borrowed from the RFC after June 30, 1937. Loans are available to persons, corporations, states, territories,

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22. Ibid., pp 399-403.

and subdivisions of the same, municipalities, people's utility districts and cooperative, nonprofit or limited dividend associations organized under the laws of any state or territory of the United States. Loans may also be made by the Administrator to rural people for the wiring of their premises and for the acquisition and installation of plumbing and electrical equipment. Money is appropriated from the Treasury for the purpose of making investigations, publications, surveys, etc. All loans and contracts entered into by the REA under the Executive Order, numbered 7037, are transferred to the organization under this act. The act is to be administered on a non-partisan basis, and in the selection and promotion of employees, no political test or qualification will be given or considered, all appointments and promotions being made on the basis of merit and efficiency. The uncompensated services of any federal, state, or local officer may be used by the Administrator when available. He may appoint and fix compensation of attorneys, engineers, and experts without regard to the Civil Service laws. He may also appoint and fix the compensation of such other officials subject to civil service laws as he may deem necessary, and prescribe their duties. The Administrator makes a report annually (before January 20th of each year) to Congress concerning the activities of the act. The Administrator can extend the time of payment of interest on loans made for five years. Loans made by the Reconstruction Finance Corporation cannot be extended, however. "Rural area" means any area not included within the boundaries of any city, village, or borough having a population in excess of 1500 inhabitants, including both farm and nonfarm population. "Farm" means a farm as defined in the publication of the Bureau of Census. If any provision of

the act is held invalid, the remainder of the act is not affected.[23]

From the former spirit of cooperation, the private utilities turned to a spirit of warfare against REA as soon as it became a permanent organization in 1936. They constructed "spite lines", spread false propaganda, and used every means, open or under cover, by which they could destroy the REA. As a result of this attitude, REA was able to lend to private utilities only $1,970,750, the subsidiaries of the Associated Gas and Electric Company taking $876,450 of that.

According to the first annual report of the REA, as of December 31, 1936, there had been allotted $43,000,000 to 218 projects, and 109 contracts totaling $24,000,000 had been executed. However, for the building of farm lines, less than $5,000,000 was paid out. Of the first $100,000,000, $85,000,000 had been turned back.

The Rural Electrification Administration, as established by President Roosevelt's Executive Order and later made into a permanent organization by the Rural Electrification Act, is one which has gigantic possibilities and one that can be of immense social as well as economic value.

The REA is attempting to demonstrate that the cost of rural service can be lowered. This can be done by simplifying and standardizing the type of line construction, by building lines by contract after competitive bidding, by encouraging rates which promote the abundant consumption of electricity, by planning for extensions to serve entire areas so as to effect the economies of mass construction, by lowering overhead and capital, and by making it possible to secure loans for electrical appliances

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23. U. S. Stat. L., XLIX, Part 1, 1363-1367.

on reasonable terms.[24]

Not every part of the country will need Federal aid to the same extent as other sections. Some will be able to repay their loans very quickly, while less fortunate areas will spend the lifetime of their plant paying for it. The investment costs per customer in the sparsely settled areas of our country increases rapidly. Under average conditions, it is estimated that the investment cost per customer is $160 for ten customers per mile. The cost per customer is the criterion, if one can be set up, of the extent of Federal aid, assuming a potential customer's use that satisfied certain minimum requirements of feasibility. The degree of aid necessary to make the costs per customer reasonable will depend on the condition peculiar to each project that is a technically complete unit.[25]

The REA operates only in Washington, D.C. It will not set up any intermediate state or regional organizations of its own. Its field representatives are not assigned to any one district or state, but are moved over the country as the need for them arises.

The money which the Rural Electrification Administration receives, which is approximately $410,000,000 over a period of ten years, is appropriated by Congress for each fiscal year. As the loans are repaid, the money is deposited in the General Fund, preventing the money loaned by REA from becoming a revolving fund.

As mentioned before, it was anticipated that approximately ninety

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24. Cooke, Morris L. "Letter to Senator Norris", Rural Electrification News, November, 1935, I, No. 3, 7.
25. Ibid., p 9.

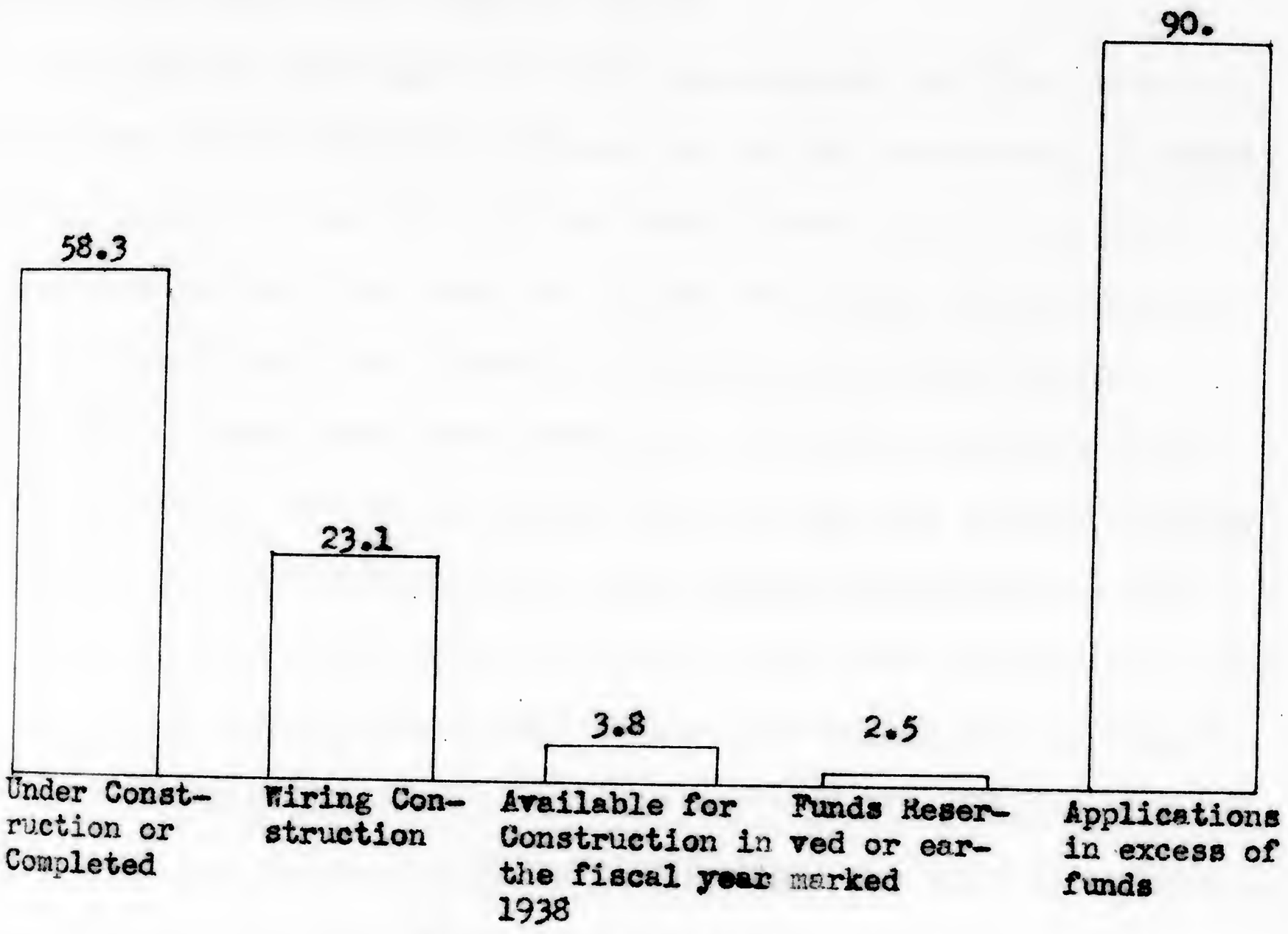
percent of the REA money would be loaned to private utilities. This did not turn out to be the case. Most of it thus far has been allotted to cooperative organizations. The following chart as of November, 1937, gives a comparison of the relative importance so far as the number of projects is concerned, of the different types of borrowing units:[26]

Type of Borrowing Organization	No. of Projects		Loans Granted		Customers		Miles of line	
	No.	%	Amount	%	No.	%	No.	%
Cooperative Associations	249	76.2	$54,478,968	78.5	182,545	80.4	51,418.9	79.6
Private Nonprofit Corporations	35	10.7	6,368,200	9.2	18,421	8.1	5,175.3	8.0
State Corporations	1	.3	542,328	.8	2,128	.9	511.0	.8
Municipal Corporations	6	1.8	606,058	.9	2,244	1.0	573.15	.9
Power and Irrigation Districts	20	6.1	5,805,700	8.4	14,568	6.4	5,159.7	8.0
Private Utility Companies	16	4.9	1,574,767	2.2	7,214	3.2	1,780.72	2.7
TOTALS	327	100.0	$69,376,021	100.0	227,120	100.0	64,618.77	100.0

Although electric cooperatives are the main type of organization distributing electric current through REA loans, they were not the first cooperatives organized for this purpose. Between forty and fifty cooperatives in the United States were organized to distribute electrical energy before the advent of the REA. The associations all date back before 1930, and some as early as 1914. These cooperatives were formed in a number of states, chiefly in Idaho, Iowa, Minnesota, Washington, and Wisconsin, but one or two were found in Illinois, Indiana, Missouri, North Carolina, Virginia, and Wyoming. The membership in these early cooperatives ranged from eight to nearly one thousand persons.[27]

26. Report of REA - 1937, p 22.
27. "Cooperative Associations for Supply of Electric Current", Monthly Labor Review, XLVI, January, 1938,110.

While there were 327 projects listed as of November 1, 1937, not all of these projects have been completed, or are anywhere near completion. A glance at the fiscal status of the Rural Electrification Administration Program as of December 15, 1937 reveals where the money of REA is going;[28]



An analysis of the REA financial status reveals that this organization has been given approximately $85,000,000 since May, 1935, and is not eligible for more funds until June 30, 1938. Seventy-six million dollars has been allocated for specified projects, covering 76,000 miles

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28. Report of REA - 1937, opp. p 85.

of rural line to tie in about 250,000 customers. July 1, 1938 should see 85,000 miles of REA sponsored line, with perhaps 300,000 rural customers, if the remaining $7,000,000 is spent in a manner similar to that of the funds which were spent before. These customers will be principally farmers, but there are some stores, filling stations, churches, and other nonfarm users among those aided by REA.[29]

When REA was established in 1935, approximately one farm in ten had electricity, but in December, 1937, one in six had electricity, or about eighteen percent of the farms of the United States were electrified. Fifty REA loans have been given for wiring farm homes. Up to December, 1937, $2,634,000 had been allotted to nineteen generating plants. $1,000,000 of these loans were turned back when other sources of power became available. Due to the impetus given by REA, the private electric utilities have also increased their rural mileage considerably. They built an estimated 41,000 miles of lines in 1937 which exceeded the record set in 1936 by 9,000, which in turn doubled the construction in 1935.[30]

Most organizations of any magnitude have definite policies by which they control the actions of the corporation, and the Rural Electrification Administration is no exception. It has been the policy of the REA to refuse to make loans for distribution lines in areas which have been determined as submarginal for agricultural purposes. There can exist no social or economic justification for farm electricity in an area which can never support a progressive agricultural program. A potential power market must

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29. "Farm Power Jitters", Business Week, New York City: McGraw-Hill Company, November 6, 1937, p 46.
30. Ibid., p 46.

exist. The REA has further taken the stand that the farmer should receive a rate which will allow him to use a greater and greater amount of electricity without penalizing operations, and, thus, build up a large load. Any fixed charges such as service demand and transformer charges should be avoided in rural rates. A simple block system should be given the rural customer with the kilowatt hour charge for the second and subsequent blocks dropping sharply. A minimum charge ranging from $2.50 to $3.75 should be charged and should include forty to fifty kilowatt hours of electricity. If a minimum monthly guarantee is provided in the customer's contract for rural service, it should be terminated in three years or less, after which a minimum on applicable rates would apply. The customers should not have to bear part of the cost of rural line extensions where there will average three or more customers per mile of line. When electrification of an area is undertaken, it should be completely electrified and the cost averaged over the entire project.[31]

Another established policy of REA has been in regard to service lines (lines connecting the customer's home with the distribution line). REA's views on this subject are that, "Borrowers will be allowed to include as part of the cost of the project financed by government funds, service lines on customer's property up to 1,000 feet, provided that the building of such lines does not adversely affect the feasibility of the project. If borrowers desire to include service lines longer than 1,000 feet as a part of the cost of the project, the facts of such case should be submitted in detail for special consideration. If such service lines, longer

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31. Herring, W. E., "Extending Rural Lines to Serve Small Groups", Rural Electrification News, II, No. 2, October, 1936, 8.

than 1000 feet, will not adversely affect the feasibility of the project, REA may, in special cases, permit longer lines to be included.[32]

REA has also set up certain policies regarding the board of directors of the different projects. They are allowed a certain amount per meeting and a certain amount for mileage during the construction period, the funds to be advanced from REA. Unless the case is exceptional, REA will not approve allowances to directors for more than the following maximum sums: three dollars per director for each meeting attended; five cents per mile travel allowance to and from meetings. The REA has also set up the rule that the total allowance shall not exceed seventy dollars per month for the first three months after incorporation, and thirty-five dollars per month thereafter, until the construction period is ended. The secretary of each project must submit with the requisition for funds to cover compensation for directors, a certificate as to the number of meetings held, the number of directors attending, and the total mileage driven.

The Rural Electrification Administration found a ripe field for activity in Pennsylvania, for the wealth of the state warranted more electrified farms. Pennsylvania had 191,284 farms on January 1, 1935 and ranked nineteenth in the United States in this respect. On that same date the Keystone state had 45,182 rural customers receiving central station service and ranked fourth in this respect in the United States. Pennsylvania, however, had only 23.6 percent of her farms served with electricity

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32. "REA Policy on Customers' Service Lines", Rural Electrification News, II, No. 7, March, 1937, 22.

as of January 1, 1935, and ranked sixteenth in the United States in this respect. These figures represent the status of the state before REA.[33]

A summary of rural electrification in Pennsylvania shows that there were in operation in October, 1935, according to figures gathered by the industry, roughly 15,000 miles of rural lines serving between 45,000 and 50,000 farms, and 150,000 suburban residents. Between 1927 and 1935, 8,924 miles of line were built at a cost of $18,014,636, which served 104,328 customers of whom 25,531 were farmers. Since January 1, 1935, there have been built or undertaken 975 miles with the total for the year estimated to be 1100 miles costing $1,750,000, which is just $1,580 per mile of line. There were approximately 3000 miles planned for 1936. This was all without the help of REA.[34]

Rural electrification lagged sadly in Pennsylvania between 1924 and 1935. In the latter year high line service reached thirty-eight percent of the New England farms, thirty-five percent of the New York farms, and only about twenty-five percent of the Pennsylvania farms.[35] Despite the fact that Pennsylvania has the second largest population of any state in the Union, "the 1930 census shows that in eighteen out of its sixty-seven counties, not more than ten percent of the farms had central station service; in five counties less than five percent of the farms were served."[36]

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33. Hearings before the Committee on Interstate and Foreign Commerce, Washington, D.C.: U.S. Government Printing Office, March 14, 1936, p 91.
34. Rural Electrification News, I, No. 2, October, 1935, 16.
35. Many farms included in the twenty-five percent are really in metropolitan areas and are not truly rural dwellers.
36. Cooke, Morris L. "Pennsylvania Barriers Still Remain", Rural Electrification News, II, No. 1, September, 1936, 13.

Rural electrification had been entrusted to the Pennsylvania Joint Committee on Rural Electrification. This group was formed in 1927, representing the electric utility industry and the agricultural interests of the state. Eight utility company representatives and nine representatives of agriculture met in order to further rural electrification. In the meetings of the Joint Committee a member of the former Public Service Commission sat as an observer. It was his duty to advise the Public Service Commission on the differences between the groups, and if any progress was being made in rural electrification.

The Joint Committee proved to be the greatest single obstacle to rural electrification in Pennsylvania. Some of the policies adhered to by this body rendered the farmer impotent in his desire for electricity. The Joint Committee published a report in 1928 entitled "Rural Electrification in Pennsylvania", and in it were discussed some of the policies and ruled followed by the private utilities. The report stated that the electric companies had filed a minimum monthly guarantee of revenue of two percent or less on the cost of the extension for at least ninety-five percent of the rural area of the state. Thus, if an extension cost $2,000, on a basis of a two percent guarantee, the electric company would require a guarantee of monthly revenue of forty dollars. The report also stated that the rates usually charged the rural customers were those in force in the nearest municipality subject to the guarantee of monthly revenue. Up to the amount of his guarantee of monthly revenue, the customer could have used current without additional charges. The customer had to sign an electric contract for a term of three years. During this interval, the minimum monthly guarantee was not to be increased, but it might have been

decreased. A new contract was to be negotiated between the company and the customer every three years. Unless changes had occurred which required the setting up of a new minimum monthly bill, the one which was used for the previous three years was to be used again. When an applicant for electric current was not located upon the highway upon which the "high line" ran, he was required to build his own lines to within one service span of the public highway. The customers' lines had to be built in conformity with the power company's rules and regulations, for services were not to be furnished over lines which were not properly constructed from the viewpoint of safety and service. The report continued by showing what the cost of a mile of line depended upon. The cost varied according to the topography of the land, tree trimming necessary, railroad crossings, moving or building over telephone lines, etc. The construction costs are determined by such variable items as the length of the poles, the distance between the poles, the voltage of the line, necessity for single phase or three phase lines, etc. Taking into consideration all phases of line building, specifications vary from $1200 to $5000 to construct a mile of electric line in Pennsylvania by the private power companies.

The report brought out further that the minimum monthly guarantee payment of two percent on the cost of the extension does not pay for the line in four years. It is only the amount necessary for the company to receive in order to maintain service on the line permanently, and must provide for such items as interest, depreciation, maintenance, tax, insurance, line and transformer losses, and commercial expenses, such as billing and meter reading.

The foregoing policies were followed generally by the private utility companies in their rural electrification programs. By following these rules only the wealthier of the farmers could avail themselves of the manifold uses of electricity. The Joint Committee was unable to modify these circumstances or induce the private utilities to modify their policies in such a manner as to encourage and promote rural electrification.

Governor Earle, in the latter part of 1936, asked the Public Service Commission to withdraw its observer, contending that the Committee was dominated by the utilities and was a detriment to the farmers seeking electricity. Administrator Cooke of REA, in a speech at Meadville, Pennsylvania, characterized the Committee as an organization hampering rural electrification and "freezing" rates which farmers could not afford to pay. The Public Service Commission assumed part of the duties of the Joint Committee after December, 1936, such as investigating all applications for rural service, or complaints against service, or rates.

CHAPTER II

THE WORK OF THE RURAL ELECTRIFICATION ADMINISTRATION IN PENNSYLVANIA

One of the biggest obstacles in the way of the formation of rural electric cooperative projects in Pennsylvania was the lack of adequate cooperative laws. In this state, until the passage of the rural electrification act and the new public utility commission law, early in 1937, cooperative projects were operating under a fifty year old cooperative statute, far out of line with the needs of the electric cooperatives. By the passage of the "Electric Cooperative Corporation Act" on June 21, 1938, Pennsylvania became one of the most progressive states in rural electrification in the United States. The purposes of the act are revealed in the title which reads:

> "Relating to nonprofit cooperative corporations organized to engage in rural electrification, providing for the organization, consolidation and dissolution of such corporations; prescribing the qualifications for membership therein; conferring certain rights, powers, duties and immunities upon them and their officers and members; prescribing the conditions upon which such corporations may exercise their powers; providing for the inclusion of certain existing cooperative or nonprofit corporations and associations within the provisions of this act; conferring powers, and imposing duties on certain State departments, commissions and officers; fixing fees; conferring the right of eminent domain; prohibiting the use of certain terms in the corporate names of other corporations; exempting such corporations from excise taxes; imposing on them a license fee; and exempting such corporations from the jurisdiction of the Pennsylvania Public Utility Commission, and from the provision of the Securities Act."[37]

Although the above act exempts electric cooperative associations

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37. "Electric Cooperative Corporation Act", Pennsylvania Approved June 21, 1937, Act No. 389.

from the jurisdiction of the Pennsylvania Public Utility Commission, the success of a number of the cooperatives depended upon the actions of the Commission. The Commission does have jurisdiction over the private power utilities, and it is with these that the cooperatives must deal. There is also a section (418) in the Pennsylvania Public Utility Law which is of great importance to the electric cooperative associations. This section reads:

> "Construction and Installation of Facilities: Limitations - If a bona fide cooperative association has been organized to furnish light or power service to its stockholders or members only, on a nonprofit basis, and has filed with the Commission a map of the territory to be served by such association, and a statement verified by oath or affirmation showing that a majority of the prospective customers in the area are included in the project, no public utility shall begin the construction or installation of any new plant or system, or the construction or installation of any extension, improvement, or addition to its existing plant or system for furnishing light or power service within said territory, until the expiration of six months from the date of filing such map and statement. In the event such association has entered into a loan agreement with any federal agency for the financing of its proposed system, and has given written notice thereof to the Commission, no public utility shall begin any such construction or installation within said territory until the expiration of twelve months from the date of said loan agreement."[38]

The cooperatives, protected by these laws, have made rapid strides forward. Several of the cooperatives have called upon the Public Utility Commission for assistance. The Commission set reasonable wholesale rates in several instances and prevented or stopped private power companies from building "spite lines" into the proposed territory of the cooperatives in a majority of the projects. Its fostering attitude has been of great

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38. "Public Utility Law", P. L. 1053, No. 286, Approved May 28, 1937.

value to the work of the REA in Pennsylvania.

The work of the REA in Pennsylvania is briefly summarized in the following chart:[39]

REA FINANCED PROJECTS IN PENNSYLVANIA - Sept. 14, 1937

On July 1, 1936, there were 144,725 Pennsylvania farms without electric service.
Total allotments for Pennsylvania projects since REA was organized are $2,356,450.

Project Under Construction or Completed	Sponsor	Amount	Miles	Customers
Pennsylvania-Crawford	Northwestern Rural Elec. Coop.Assn.,Saegertown, Pa.	$419,016	399	1,432
Sullivan	Sullivan County Rural Elec.Coop.Assn.,Forksville, Pa.	130,000 20,000 (Generating Plant)	130	500
Bradford	Claverack Coop.Assn., Towanda, Pa.	210,000	214	652
Tioga	Tri-County Rural Elec. Coop. Assn., Mansfield Borough, Pa.	340,000	356	920
Clearfield	Central Rural Elec.Coop., Clearfield, Pa.	310,000	306	1,200
Indiana	Southwest Central Rural Elec. Coop. Assn.	400,000	402	1,432
Allotments Approved				
Armstrong	Central Penna.Rural Elec. Coop. Corp., Parkers Landing, Pa.	447,000	425	1,864
Indiana	Southwest Central Rural Elec. Coop. Assn., Indiana, Pa.	25,000 (wiring and plumbing installation)		250
Tioga	Tri-County Rural Elec. Coop. Assn., Mansfield Borough, Pa.	25,000 (wiring and plumbing installation)		200
Bradford	Claverack Coop. Assn., Towanda, Pa.	24,450 (wiring and plumbing installation)		163

39. REA Release of Sept. 14, 1937, supplemented by the Report of REA - 1937.

These cooperatives have arisen spontaneously without any promotional work upon the part of the Rural Electrification Administration. Many things must be done by the infant project before REA will allot any money to it. The territory must be mapped, a tentative pole line drawn up, incorporation of the project completed, customer list of large enough proportions secured, officers and employees of the cooperative chosen, and source of power tentatively secured. These are but a few of the requirements REA makes upon every project organized in Pennsylvania before any money will be allotted to it. All of the above steps must be approved by REA.

The remainder of Chapter II is devoted to individual case studies of the seven projects in Pennsylvania brought into existence through REA loans. The author traveled over 1200 miles in obtaining this material and visited each cooperative personally, speaking with the project managers and employees of the cooperative, gaining an insight into the cooperative methods, struggles, hopes, physical plant, etc.

TIGHT BINDING

MAP SHOWING THE LOCATION OF THE SEVEN RURAL ELECTRIC COOPERATIVES IN PENNSYLVANIA

Northwestern Rural Electric Cooperative Assn. Saegertown

Tri-County Rural Electric Mansfield Cooperative Assn.

Claverack Cooperative Towanda Assn.

Forksville Sullivan County Rural Cooperative Assn.

Central Penna. Rural Cooperative Corp. Parkers Landing

Central Rural Electric Cooperative Clearfield

Southwest Central Rural Electric Cooperative Indiana Assn.

ERIE, WARREN, McKEAN, POTTER, TIOGA, BRADFORD, SUSQUEHANNA, WAYNE, CRAWFORD, VENANGO, FOREST, ELK, CAMERON, MERCER, LYCOMING, SULLIVAN, WYOMING, LACKAWANNA, PIKE, CLINTON, CLARION, JEFFERSON, LUZERNE, CLEARFIELD, LAWRENCE, BUTLER, CENTER, COLUMBIA, MONROE, UNION, CARBON, ARMSTRONG, MONTOUR, INDIANA, BEAVER, SCHUYLKILL, SNYDER, NORTHUMBERLAND, NORTHAMPTON, CAMBRIA, MIFFLIN, ALLEGHENY, JUNIATA, DAUPHIN, LEHIGH, PERRY, BUCKS, WESTMORELAND, LEBANON, BERKS, WASHINGTON, MONTGOMERY, SOMERSET, BEDFORD, CUMBERLAND, CHESTER, FAYETTE, FULTON, FRANKLIN, YORK, LANCASTER, PHILADELPHIA, GREENE, ADAMS, DELAWARE

RAND McNALLY

LETTER SIZE OUTLINE MAP

PENNSYLVANIA

SCALE

0 5 10 20 30 40 50 Miles

Copyright by Rand McNally & Company, Chicago
MADE IN U. S. A.

80° 79° 78° Longitude West of Greenwich 77° 76° 75°

Pennsylvania

The Law Prohibits Copying or Reproduction by Any Process for Personal Use or Resale.

Northwestern Rural Electric Cooperative Association
Saegertown, Pennsylvania

Building in which the cooperative office
is housed.

NORTHWESTERN RURAL ELECTRIC COOPERATIVE ASSOCIATION
Saegertown, Pennsylvania

REA - 10 - OP — Pennsylvania 4A, Crawford
Project 375 miles, — 1342 customers
Lines in Erie, Crawford, Venango and Warren Counties
Allotment $101,000 - May 5, 1936
299,000 - August 1, 1936
Total Contract $400,000 - November, 1936.

History

The Northwestern Rural Electric Cooperative Association, with offices located at Saegertown, Pennsylvania, six miles north of Meadville, and thirty-six miles south of Erie, was the pioneer rural electric cooperative in the state. Favorable topographical features was one of the main reasons for the early beginning in this section. The idea was really started by a woman living in the small village of Conneautville, a few miles from Saegertown. It was she who first wrote into Washington for information concerning the formation of electric cooperatives under the Rural Electrification Administration. Her work was soon taken up by Mr. C. H. Smith, an electrical contractor, formerly of Meadville.[40] When Smith assumed the head of the promotional work, a field representative of the REA was brought in from Washington to explain the ramifications of the cooperative plan to the farmers of the community. The territory was divided into thirteen units. In each of these units a president, vice-president, secretary, treasurer, and three vice-presidents in charge of organization were elected by the unit organization. It was the duty of these officials to map their territory, and to ascertain the number who would take electricity if the energy was provided. When this

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40. Ironically enough, the lady who instigated the idea died before REA current reached her home.

preliminary work had been accomplished, the unit organizations were dissolved and a compact organization formed. The articles of incorporation were accepted on June 22, 1936, the incorporators becoming the first board of directors.

The four counties served have approximately 14,178 farms. Many of these in the more populated areas are served by the private power companies. The cooperative is serving approximately 1000 customers upon 375 miles of line. When the project is completed there will be about 1342 customers served, or about ten percent of the entire number of farms in the area. Besides farmers served, there will be a number of stores and filling stations included on the customer list.

There was one unique feature about this cooperative which probably enabled it to exist when its funds were very low. When the cooperative was incorporated, a cooperative store, dealing in a wide variety of electrical appliances, was also established. There was a ripe field in this section for the sale of such appliances, and the profits by the consent of the members of the association were directed into the running of the project. This was necessary because the operating funds allotted by the REA to the project had not been forthcoming.[41] This was the first Pennsylvania rural electric cooperative association to begin to amortize its loans. It paid a $1900 interest charge in March, 1938, on the funds borrowed.

Need

The need for rural electrification in this area was great. Although

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41. That is, no operating funds except $500 had been received.

the private utility companies had been petitioned a number of times for the installation of electric service, the rates asked were prohibitive. One of the cooperative's best selling points in canvassing the territory for members was the idea that if the people ever expected to obtain electric service, the cooperative method would be the only method by which it could be made available for many years in the future.

Management

Much of the task of canvassing the area for members was undertaken by the men who were later destined to become the first board of directors. The eleven members on the board of directors assumed their position as such under the Pennsylvania law which states that incorporators become the first board of directors in a cooperative society.[42] Thereafter, they are elected at an annual meeting held in January of each year. This board, holding its meetings monthly, is a policy forming group and serve without monetary reward.

The board of directors of the Northwestern Rural Electric Cooperative Association is as follows:

Officers: Carl D. Proctor - President
J. A. Koeseling, Jr. - Vice-President
M. Agnes Swaney - Secretary
A. D. Steinbrook - Treasurer

Directors: C. W. Zilhaver
R. R. Courtney
E. W. Prather
K. Graham
Grove Lewis
C. J. McNamaia
Ralph Hummer

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42. "Electric Cooperative Corporation Act", No. 389, Approved June 21, 1937.

Mr. C. H. Smith, who did a considerable amount of promotional work on the project, was made the first project superintendent, which position he retained for several months before leaving to take up duties of a similar nature with the Central Pennsylvania Rural Electric Cooperative Association, located at Parkers Landing. He was succeeded by Mr. Bruce V. Hecker, who was a farmer in the vicinity. Mr. Hecker's appointment was due to his promotional activities, personality, and a practical working knowledge of electricity.

The project had nine employees in all - six male and three female (April, 1938). Among these employees are included a bookkeeper, stenographer, two regular linemen and one alternate lineman, one regular meter and also an extra meter man as needed. The salary of the project manager is $150 per month, plus five cents per mile transportation charges up to twenty-five dollars monthly. The regular meterman's salary is $125 per month. The wages of the extra meterman is sixty cents per hour, plus four cents per mile for transportation. Leland J. Culbertson, attorney-at-law in Meadville, was retained as legal adviser. He is under a retainer fee of $2000, his services to be required as long as any legal work is necessary on the first two sections of line built.

Construction

The first physical work to be done upon the proposed line was undertaken by Louis T. Klauder, of Philadelphia, an electrical engineer, whose duty was to survey and outline the most feasible route for the proposed line. After the surveying was over, the actual construction was begun. The project was divided into two sections and bids were submitted for each section separately. The first section was built by the Monroe

Electric Company, Chicago, Illinois, and the second section was constructed by Barton and Hess, Incorporated, Pittsburgh. These contracts were let after bids had been accepted and publicly opened. One hundred and twenty-five men were used in constructing the lines between June 22, 1936, the date of incorporation, and June 17, 1937, the date of the energizing of the lines. The laborers employed during this construction period were all local men. A few WPA workers were used at the beginning of the construction period, but were soon dismissed for incompetence. Wages were paid on a graduated scale, ranging from $1.00 per hour for skilled workmen, first class linemen, and foremen, to forty-five cents per hour for common labor. These men were required to work a forty hour week.

Obstacles

This cooperative earned its right to exist by fighting upon many battlefronts. The first difficulty it encountered was the attitude of skepticism displayed by the bankers, merchants, and newspaper owners. Political opposition was also encountered. This section of Pennsylvania is predominately Republican and the opposition encountered from this quarter was considerable. The people in the vicinity proved to be a third obstacle to surmount. They were skeptical for several reasons, the main ones being that it was organized under the "New Deal", and that it could not possibly succeed because it was borrowing 100 percent of the entire cost of the project, and was offering the lines to be built in the future as security. The strongest opposition, however, came from the private electric utility industries in the area. This cooperative had two power companies seeking to exterminate it. They were the Pennsylvania Power and Light Company, and the Harley D. Carpenter Company, a

small concern having offices in Meadville, Pennsylvania. Both of these companies constructed extensive "spite lines" in the cooperative territory. The Rural Electrification Administration finally stopped this practice, and the cooperative eventually purchased $15,500 worth of these "spite lines" to serve its customers. The cooperative also had difficulty in obtaining a wholesale rate which it could afford to pay. The first price demanded was nineteen mills per kilowatt hour, which was too expensive for the cooperative to pay. The Pennsylvania Public Utility Commission finally reduced the rate to eleven mills per kilowatt hour. This warfare between the cooperative and the Pennsylvania Electric Company has ceased, and each have agreed in the power contract that they will not infringe on the other's territory, and that the lines of the respective parties shall come no closer than 300 feet to one another.

Policies

In order to conduct the cooperative in a business-like manner, certain policies and rules, some comparable to those used by the private utilities, were formulated. Meters are to be read monthly by the meter-man who attempts to collect the bills while he is reading the meter. If he does not collect the bill, they are sent out on the first of the month for the electric energy used the previous month. Bills are not discounted for prompt payment, but a five percent penalty charge is added if they remain unpaid by the tenth of the month in which they are sent out. If bills are not paid within thirty days from the time of billing, the electric current is shut off. The meters in all instances are owned and installed free of charge by the cooperative. The cooperative members pay

the cooperative their monthly bills, and it in turn pays the power company for the wholesale power purchased. It has been the policy of the cooperative to provide for the amortization of the $400,000 loan in the minimum monthly bill. To this end, the cooperative sponsors load building exhibits to increase the amount of electricity purchased. If any profits are earned over and above the amortization charges, they are to be distributed by general rate reductions. The cooperative requires each one of its 1200 members to purchase at least one share of five dollar stock. However, any member can purchase any number of shares he desires. A rule of the cooperative applying to the meetings of its members is that seventy-five persons (members) constitute a quorum. The association has been allotted a wiring loan of $10,000, but it has not been received as yet. Each person will have to meet certain standards set up by the cooperative in order to receive one of these loans.

Uses

After the installation of lights, the three appliances most in demand were the electric pump, the electric refrigerator, and the electric stove, respectively.

Extensions

The Northwestern Rural Electric Cooperative Association is planning a 200-mile extension to the present line during 1938-1939, pending a REA loan, with a customer load of four per mile of line anticipated. The manager of the project is also planning short extensions and connections (eight miles) to be built by force account during 1938.

Rates

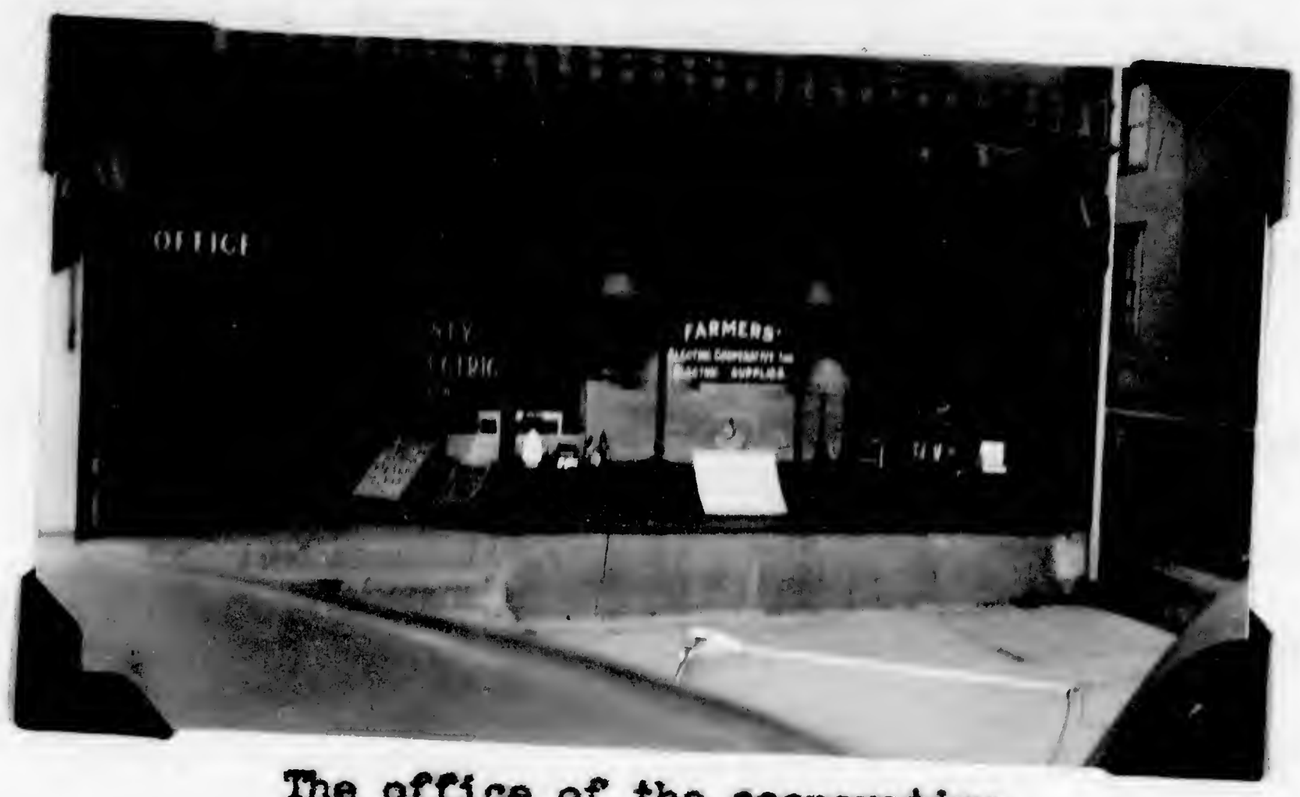
The cooperative receives $3000 monthly from its farm sources for the

electricity it provides them. The farmer's bill is as follows - $2.75 minimum charge which allows the use of forty kilowatt hours of electricity; the next forty kilowatt hours are purchased for four cents per kwh; the next one hundred twenty kilowatt hours at 2.5¢; and all over two hundred kilowatt hours cost 1.5¢ per kwh. There is a slight reduction in the rates only where a hot water heater has been installed.

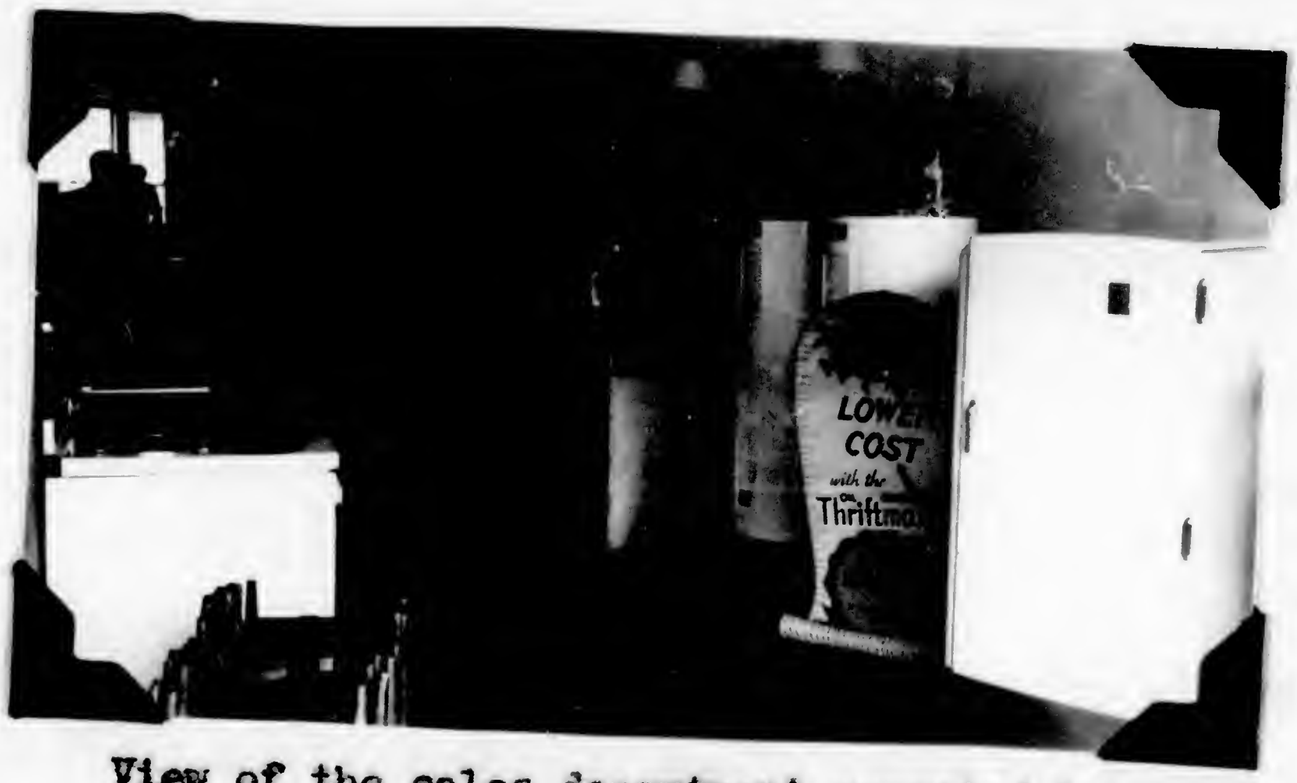
General

The farmers in the cooperative are dairymen for the most part with a gross average income of approximately $1500. There is a larger percentage of tenant farming in this project than in any of the others studied. Approximately twenty percent of the farmers or rural dwellers are tenants. The members of the cooperative are loyal to it to a certain degree. However, after the electricity has been installed, they consider it just as they would any other electric utility. This project has four members per mile of line. The lines were built at a cost of $900 to $1000 per mile. This cooperative purchased $500 worth of material for the maintenance and operation of the lines and plant since it began serving electricity. As yet, no allowance for depreciation has been set up. The cooperative pays forty dollars per month for rental of its office and store. It also pays a state membership tax of ten dollars per 100 members, a three percent federal kilowatt tax, a county merchants tax on the store itself, and local property taxes on the land owned upon which the substations are built.

Tri-County Rural Electric Cooperative Association
Mansfield, Pennsylvania



The office of the cooperative.



View of the sales department operated by this cooperative in conjunction with its office.

TRI-COUNTY RURAL ELECTRIC COOPERATIVE ASSOCIATION
Mansfield Borough, Pa.

REA - 10 - OP Pennsylvania - 13 - Tioga
Project - 350 miles, 930 customers - lines in Tioga, Bradford, and Potter Counties
Allotments: $340,000 - October, 1936
73,000 - December, 1937
25,000 - August, 1937 (wiring)
Loan Contract: $455,000 - January 8, 1937
Advanced: 292,000 - as of December 29, 1937

History

This cooperative is located in the northeast central part of Pennsylvania, in Tioga County, bordering on New York state. The people in this section are of Dutch origin, a solid, hard working, shrewd type of citizen. Mr. M. S. Whitlock, an electrical contractor from Sylvania, Pennsylvania, was the first to catch the rural electric cooperative idea. He soon interested others and they began to canvass the territory to determine how many would take electricity in case it should become a reality. After a sufficient number had promised to take electricity, the project was organized on a township basis. There were twenty-one of these local areas included in the project, located in the three counties. In each one of these local units, a potential customer campaign was conducted. When this work had been completed and the townships completely organized, a general meeting was held at Keenyville with an REA field representative in charge. With the formation of a compact organization, the township organizations were dissolved, and the project was incorporated, with the incorporators becoming the first board of directors under the Pennsylvania law. Besides farms served, there were small villages, such as North Fork, Brookfield, East Troy, and Big Pine receiving current. The association was incorporated on November 26,

1936, and began service on December 3, 1937. Of the 1000 potential customers, 600 were receiving electricity on 348 miles of line in April, 1938.

There are approximately 9399 farms in the tri-county area. Some of them will be served by the cooperative located in Bradford County. However, the Tri-County Rural Electric Cooperative Association will be serving approximately 10.6 percent of the farms located in these three counties.

Need

The people in this territory are mostly dairy-farmers in the New York milkshed, with an average gross annual income per farmer of approximately $2000. These farmers have petitioned the electric company many times for electric service, but always the rates asked were much too high. The need is particularly marked because of the dairy business. Electric pumps and milkers are in great demand in this section.

Management

The board of directors are elected at an annual meeting by a majority of the members of the cooperative present. The election of the board is different here than in the other projects in Pennsylvania. One director is elected from each of the ten areas into which the project is divided, and four directors are elected at large. The board chooses its officers from within its own group. The fourteen members of the board are allowed three dollars per meeting and five cents per mile for transportation to and from the meetings. The meetings are held on the second Tuesday of every month. The board of directors is as follows:

Officers: H. Hulslander - President
Howard Connley - Vice President
Angus Steadman - Secretary
Ray Kennedy - Treasurer

Directors: Milton Ream
Cass Ackley
Lawrence Hunt
Herbert Doan
Anna Mellett
Ward Brannik
Noel Card
Joseph Whitlock
Sol Stevens
Roscoe Kemp

The manager is elected by the board of directors and is responsible only to them. Mr. M. S. Whitlock is the present incumbent, and receives a salary of $150 per month. Besides the manager there are four other employees of the cooperative. The assistant manager receives twenty-five dollars per week. The two linemen employed also receive twenty-five dollars per week. They are also employees of the private power utility serving in that district. These two linemen are charged with the duty of reading the meters of the cooperative members besides caring for the lines. The other employee is the secretary-stenographer who takes care of the correspondence and the monthly bills.

Construction

Louis T. Klauder, electrical engineer of Philadelphia was retained to survey a pole line route and to draw maps of the territory, etc. His compensation was to be three percent of the construction cost. The construction of the line was let to the Ross Electric Company, Philadelphia, who offered the lowest competent bid. This company did all the hiring of workers, who were for the most part local men. No relief labor was used. The seventy-five men hired during the peak of construction erected 348 miles of line in ten months. They set between forty and fifty poles each day with an average span between the poles of 425 feet. The wages paid

to the workers ranged from 45¢ per hour for day labor to 90¢ per hour for skilled labor and linemen.

Obstacles

Despite the eagerness of the people for electricity, the Northern Pennsylvania Power Company did not give up the territory without a struggle. Upon hearing that the cooperative had organized and that loans had been allotted, the power company immediately began to erect "spite lines" into the cooperative's proposed territory. Before the REA could stop this procedure, between eighty and ninety miles had been built. The cooperative was able to purchase twenty-four miles of these lines for its own use after the dispute was settled. Another difficulty which the cooperative had to overcome was the indifference of the different economic groups. The newspapers, bankers, and merchants were not interested in the project enough to form an opinion concerning it. The Republican Party, strong in this area, formed some heated opposition to it, however. Many of the members of the cooperative were of this political faith, and only joined the cooperative because of their great need for electricity. A fourth difficulty presented itself in the form of a vigorous propaganda campaign waged by the power company against the cooperative.

Policies

This cooperative association has set up definite policies and rules by which the project is run. Each person, to become a member of the cooperative, must purchase one, and only one, share of five dollar stock. The money loaned by the REA to the cooperative was loaned at 2.77 percent yearly interest rate and monthly payments to REA on loans received will not begin until June 1, 1939. Fifteen to eighteen applications for wiring

loans have been made to the cooperative since it received a $25,000 wiring loan from REA. The cooperative has set up the policy of not loaning more than $100 to each applicant. The loans are to be paid back on a monthly basis over a period of three years at a six percent yearly interest rate. If there are any profits from the sale of electrical energy, these profits will be returned to the members in the form of a dividend based upon the amount of energy used. The cooperative has also formed the policy, concerning the payment of bills, that there is to be no discount for prompt payment, but there is to be a five percent penalty charge added if the bill is not paid within fifteen days after being sent out. In all except unusual cases, if the bill is not paid within thirty days after billing, the service is discontinued.

Rates

The power used by the Tri-County Rural Electric Cooperative Association is purchased from the Northern Pennsylvania Power Company. The cooperative is purchasing 36,000 kilowatt units of energy at the present time (April, 1938). The potential number of kilowatts needed when all the members of the cooperative have been connected will be approximately 100,000. The cooperative pays the electric company for the power purchased $1.25 per kilowatt demand plus eight mills, making the total cost per kilowatt purchased eleven mills. The monthly bill which the cooperative offers to its members has a $2.75 minimum monthly charge which allows the uses of forty kilowatt hours of energy. Thereafter, the electricity is divided into blocks of forty, one hundred twenty, and excess with a sharp declining rate paid for each succeeding block of energy used.

The minimum monthly bill is so arranged as to take care of the amortization of the REA loans to the cooperative.

General

The meters used by the members of the cooperative are owned and installed free of charge by the association. At the present time, there are two customers per mile of line, but when all the potential customers are connected, there will be the required three electrical users per mile of line. Ninety percent of the people belonging to the association own their own farms or homes. While ten percent of the people are either tenant farmers or rural dwellers, the owners of most of such properties are electrifying them. Loyalty to the cooperative is not very strong for a majority of the people belong to a German League which is not favorably disposed towards the cooperative. It has been roughly estimated that about twenty-five percent of the members are steadfastly loyal to the association. The line, including substations, transformers, etc., cost $1000 per mile to construct. The 1000 easements necessary to build the line were not at all difficult to obtain because of the great desire of the people for electricity. These easements were obtained for the most part by the board of directors, who were compensated only for the number of miles traveled. The cooperative is required to pay a ten dollar state tax for every 100 members or fraction thereof, a three percent federal kilowatt tax, and a local property tax upon the land owned by the cooperative upon which the substation is built.

Southwest Central Rural Electric Cooperative Association
Indiana, Pennsylvania

View of the cooperative's office building.

View of the cooperative's office building with one of the trucks of the electrical engineer in the foreground.

SOUTHWEST CENTRAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
447 Philadelphia Street, Indiana, Pennsylvania

REA - 10 Pennsylvania 6
Project - 391 miles 1433 customers
Lines in Indiana, Armstrong, and Cambria Counties
Allotments: $120,000 - February 1, 1937
280,000 - April 8, 1937
25,000 - August 3, 1937 (wiring)
Loan Contract: 400,000 - May 21, 1937
25,000 - September, 1937 (wiring)
Advanced: 102,000 - as of December 3, 1937

History

On March 1, 1936, Mr. S. J. Orange of Indiana, an electrical contractor and a life long member of the community, suffered a severe foot injury, and was in the hospital for several weeks. While in confinement, he read of the REA in the newspapers. Upon leaving the hospital and finding time weighing heavily upon his hands, he decided to see what he could do for the unelectrified sections of his community. He worked incessantly to organize a project. He spoke in every community he was able to reach, and in every place where he could command an audience. It was two months before a field representative of REA could be procured to help with the organizational work. During the next seven months, Mr. Orange worked harder than ever apeaking every night at meetings held in schoolhouses, grange halls, club halls, and anywhere else that meetings could be held. The project was finally incorporated in March, 1937, and service was begun on January 4, 1938, when 15 miles of line were energized. Up to April 15, 1938, although the cooperative had 1500 members, only 275 were receiving current, and only 125 of the proposed 400 miles of distribution lines had been energized. The territory to be served is not strictly a farming community for there are a number of mining communities included on the customer list. There is also one borough served, Creekside,

claimed to be the only borough in the United States receiving REA power. The electric service was installed in the borough without cost to the municipality. When the borough project is completed, there will be between 100 and 125 customers in it. In April, 1938, only 45 members in the municipality were receiving electricity. There are also several other small villages receiving electric energy through the cooperative. Among these are West Lebanon, Strongtown, Deckers Point, Bearinger, and Trade City. Despite the number of nonfarm customers served, the majority of customers are farmers. In the three counties in which the cooperative serves electricity, there are about 7,900 farms in all. It has been roughly estimated that REA current reaches or will reach sixteen percent of the farms in these three counties. Armstrong County is also served by the Central Pennsylvania Rural Electric Cooperative Corporation.

Need

The need for electricity has been felt in this section for a number of years. As a considerable number of the members of the cooperative are just rural dwellers, living in small villages or mining communities, they have long felt the desire for the conveniences and necessities of modern life which only electricity can give them. The farmers, too, have felt the need for lights and appliances which will lighten their tasks and chores.

Management

Like any other efficient business organization, this cooperative has a policy forming board of directors, who became the first board because they were the incorporators. Hereafter, they will be elected at an annual meeting by a majority of the members. The board has the following officers

and members:

Officers: W. T. Bennis - President
Thomas Hood - Vice President
C. C. Postalweight - Secretary-Treasurer

Directors: Leonord Muman
Stanley Stall
Merrill Neal
Boyd Clawson

Except a small amount paid for their attendance at each meeting, plus a small amount for transportation to and from meetings, these men serve without compensation. They elected the project manager, Mr. Orange, and he is responsible only to them. Besides the manager, there are several other employees of the cooperative. They are: a meterman, who also acts as a right-of-way man, a secretary, a bookkeeper, and a stenographer. All of these employees are paid at a rate comparable to the wages received by employees in other similar projects in Pennsylvania.

Construction

The electrical engineer retained was Louis T. Klauder, of Philadelphia. It was his duty to work out a suitable pole route, map the territory, etc. W. C. Panghorn and Company, Philadelphia, was the firm retained after competitive bidding to build the lines. Harry S. Jennings was the field engineer in charge. One hundred men, all local but not on relief, were employed to construct the lines during 1937. The contractor, while doing all the hiring and firing of laborers, experienced no labor difficulties. The men employed received from 45¢ per hour for laborers to 90¢ per hour for linemen. The lines were constructed at the rate of two miles per day. This rate of construction is considered good when the rugged topography of the land is taken into consideration.

Obstacles

This cooperative, like the others in the state, had its difficulties in organizing. In the first place, the people regarded it skeptically because the idea was new and had never been tried before. The people also regarded it suspiciously because the REA became a permanent organization during a presidential election year. This project took nine months to develop, and this long organizing period was regarded as a sure harbinger of defeat. Then, too, the indifference of such groups as the merchants, political parties, bankers, etc., who dismissed the project as having no great importance, was a problem difficult to contend with.

Policies

This cooperative, following business practices, has set up definite policies and rules which govern many phases of the cooperative's activities. This association allows its members to read their own meters and send the reading on a post card into the cooperative office for billing purposes. Periodical checkings prevent fraud of any kind, the member being charged for all energy used between checkings which he has not recorded in his reports to the cooperative. Each person, to become a member, must purchase one, and only one, share of five dollar stock. If any profits are earned by the cooperative through its distribution of electrical energy, they are to be distributed either by lowering the minimum monthly charge or by distributing them in proportion to the amount of energy purchased. In April, 1938, $1000 of a $25,000 loan for wiring purposes had been reloaned by the cooperative to its members. The policy has been established that the loans are to be made for eighty percent of the wiring cost and are to run for six years at an interest rate of five percent per year. In no

event, however, is any one loan to exceed $400. The policy of the association has been to charge a minimum monthly bill which will enable the cooperative to amortize its loans from REA in twenty years. Another policy which the cooperative has set up is to allow for the first five years a depreciation allowance of 1.25 percent of the operating revenue to accrue. A reserve for a maintenance fund has also been set up, amounting to 2.5 percent of the construction costs for the year.

Uses

After the members' demands for the everyday electrical necessities such as light, ironers, and washing machines have been satisfied, they are planning to purchase electric pumps and refrigerators.

Extensions

This cooperative is planning to build an undetermined number of miles of rural electric lines by force account during 1938-39.

Rates

The Southwest Central Rural Electric Cooperative Association resells to its customers the electricity which it purchases from the Pennsylvania Electric Company. The electric company is paid on an average basis with demand and load factors entering in, making the cost of the power to the cooperative approximately 12.5 mills per kilowatt hour. This cooperative experienced no difficulties with the power company, who was willing to supply electricity wholesale at a reasonable rate, and did not run a single "spite line" into cooperative territory, or conduct a propaganda campaign against the association. The rate charged by the cooperative to its members is as follows:

$2.75 - minimum charge which purchases 40 kwh of electricity.
.05 - per kwh for the next 40 kwhs.
.03 - per kwh for the next 120 kwhs.
.0125 - per kwh for all electricity purchased over 200 kwhs.

General

This project boasts four customers per mile of line, with ninety percent of the members owning their own farms or rural dwellings. Loyalty to the cooperative is fairly strong, but not 100 percent for many of the members of the project regard the cooperative as they would any private utility company. The lines which cost approximately $900 per mile to construct were all built by contract. Incidental expenses of the cooperative are as follows:

Forty dollars rent per month for the office of the cooperative maintains.
Ten dollars state membership tax per 100 members, or fraction thereof.
Three percent federal tax upon kilowatts of energy consumed.

Central Rural Electric Cooperative Association
Clearfield, Pennsylvania

Front of the building in which the office of the cooperative is housed.

View showing office with Mr. Byers and his associates at work.

The cooperative office building.

CENTRAL RURAL ELECTRIC COOPERATIVE ASSOCIATION
Clearfield, Pennsylvania

REA - 10 - CP — Pennsylvania - 14
Project - 306 miles — 1200 customers
Lines in Clearfield County
Allotment: $310,000 - December 4, 1936
Loan Contract: 310,000 - March 19, 1937

History

The first interest was shown in the prospect of electricity through REA loans in this section in October, 1937. Construction bids were received in the same month, and the salaries of the officials of the association began at that time. Actual construction began on June 1, 1937 and service began on December 23, 1937, when 160 miles of distribution lines were energized connecting 300 customers. When the project is completed there will be 306 miles of lines serving 1200 customers. Perhaps of all the areas covered by this survey, this section was the most fertile for the rural electric cooperative idea. Much of Clearfield County is rural and over one-half of that rural area is unelectrified. While some of the customers of the cooperative are small villages, a vast majority of its customers are drawn from the 2,752 farms within the county. It has been estimated roughly that approximately thirty-six percent of farms in the country are to receive REA power. This infant project had no hostile power companies to fight, and very few prejudices to overcome. In this instance, the power company did everything possible to aid the project. There was also a keen desire for electricity upon the part of most of the farmers and rural dwellers in the section, and many of them worked wholeheartedly to bring success to the establishment of the cooperative.

Management

The Central Rural Electric Cooperative Association has a policy forming eight member board of directors. They receive no compensation other than a small amount for each monthly meeting attended and a small amount per mile for transportation to and from meetings. The members of this board of directors hold their position by virtue of being the incorporators of the cooperative association. Hereafter, the members of the board are to be chosen by the members of the cooperative at an annual meeting. The members of the board of directors are as follows:

Officers:	A. S. Omer - President
	John A. Christian - Treasurer
	Agnes W. Cornelius - Secretary
Directors:	May H. Fink
	Allan B. Roos
	J. Donald McGee
	Latimer Lansberry
	Charles K. Nicodemus
Auditors:	John K. Dufton
	Stanley V. McKee
Solicitor:	Clarence R. Kramer

The project manager, Mr. J. Blaine Byers, was elected to his position by the board of directors, and is responsible only to them. He is one of the two college men who head rural electric cooperatives in Pennsylvania. Although he was appointed by the board of directors, he had to be approved by REA in Washington. He is bonded for $5000 as are all project managers in Pennsylvania. The other employees of the cooperative are a secretary, who is bonded for $2000, a "hot" lineman and his assistant, and three metersetters who will become meterreaders when their present task is completed. The cooperative owns and maintains a heavy truck for

work on the lines, and a small truck for the meterman.

Construction

Louis T. Klauder, electrical engineer from Philadelphia, was retained to survey the most feasible pole route, and to make maps of the territory included in the project. The construction engineers were employees of the cooperative, and the companies which bid on the construction of the lines, bid on a per mile, per unit basis. There were three crews of easement or right-of-way engineers under the director of a head engineer. Each crew had three members in it, making a total number of ten engineers employed. These men were insured with the cooperative and bonded for $5000 each. The head engineer received three percent of the construction cost, while the easement engineers received eighty dollars per month plus four cents per mile for transportation expenses. There were no relief workers hired except where they were members of the cooperative. An attorney was hired temporarily to guide the cooperative's legal affairs through the construction period.

Obstacles

This cooperative had very few difficulties to overcome. One prejudice, however, gave some trouble in the campaign for members. Many residents in the cooperative's territory believed that members of the cooperative would be held individually responsible for the association's debts if it should become insolvent. This unfounded prejudice was soon explained away. The greatest difficulty was experienced not through any human hostile agency, but from Mother Nature herself. The rugged topographical features of the territory made it necessary to obtain over 2000 easements in order to construct the line. This difficulty was over-

come by persistent efforts on the part of the members of the association.

Policies

This cooperative has established certain rules and policies by which many of its actions are governed. When a person applies for membership in the cooperative, it is considered an application for electric service. When service is rendered to nonmembers, written applications for electric service are required, a separate written application is made for each separate class of service desired. The cooperative, however, has the right to reject any application for service beyond or outside the territory served, or in the case of an unsafe or dangerous condition found to exist on the applicant's premises, or for any other good and sufficient reasons shown. All customers, both members and non-members, must sign a contract to pay for the service at the rates set forth in the contract, and must pay the minimum monthly charge as the contract states. None of the agents or employees of the cooperative have the power to amend or alter in any way the rules and rates of the cooperative, or to build the cooperative by making promises or representations not found in the contract. Customers in the Central Rural Electric Cooperative Association, for clarification purposes, are classified as rural residential, rural commercial, and rural power customers. Customers of the cooperative may be required to make a deposit not exceeding the estimated gross bills for electric service for any two consecutive months selected by the cooperative. Deposits bear an interest rate of two percent, and are refunded after twenty-four consecutive months of prompt payment. The cooperative may accept, in lieu of cash deposit, a contract signed by a guarantor satisfactory to the cooperative, whereby payment of a specified sum not

exceeding the required cash deposit is guaranteed. Collection of additional charges will be waived upon payment after the expiration of the fifteen day period once in every twelve months for any customer. Every customer whose bill is unpaid five days after the close of the last day designated for the payment of the net bill, is notified in writing that if the bill remains unpaid ten days after the date of such a notice, his service will be discontinued.

The net rates are five percent lower than the gross rates. The customers pay only the cooperative which in turn pays the electric utility company. The cooperative installs the meters at its own expense for each class of service. All wiring and electrical equipment, which is not furnished by the cooperative, is maintained by the customer at all times in conformity with the requirements of the National and State Electrical Codes and with the Rules and Regulations of the cooperative. The cooperative is not liable to the customer for personal injuries or damages to the property resulting from the use of electricity furnished through the equipment of the cooperative on the customer's premises, except in the event of the cooperative's negligence. Each customer must purchase one share of stock at five dollars. No more than one share may be owned by any one member, however. This cooperative has set up a retirement fund in order to amortize its loans in twenty years. It is to be a certain percentage taken out of the minimum monthly bill.

Extensions

Extensions to the present line are constructed and are put into operation without delay following the receipt of the necessary applications, the satisfactory establishment of credit, and when necessary rights-of-

way have been granted, provided the cooperative will not be required to start construction until not less than seventy-five percent of the applicants on the proposed extension have contracted for wiring their premises, and not less than fifty percent have completed the wiring of their premises and are ready for service. Short extensions will be built by force account. No such extensions, however, were pending in March, 1938.

Rates

The electrical energy used by the cooperative is purchased from the Pennsylvania Electric Company at a price ranging from 7/8¢ to 1.25¢ per kilowatt hour, depending upon demand and load factors. The bill which the cooperative charges its customers is as follows:

First monthly minimum bill for 40 kwh, or less	$2.75
Next 40 kwh per month	.045
Next 120 kwh per month	.025
Over 200 kwh per month	.015

General

The general caliber of the farms included in this project is only average, the farms having a gross average income of approximately $800 per year. Cooperative loyalty is very strong as witnessed by the fact that most of the members take a great personal interest in the affairs of the organization. So eager were many of the members of the association to obtain electricity that they had their homes wired and appliances purchased months before the lines were energized. The project, with an average of four customers per mile of line, cost $867 per mile to construct. Groups of influence, such as the political parties, bankers, and newspapers were highly in favor of the project. The biggest selling point

in gaining customers for the project was the cheapness of the electrical energy bought through the cooperative method as compared to the prohibitive rates asked by the private power utility. The cooperative pays three kinds of taxes — a general property tax on the land it owns upon which the substation is built, a three percent federal tax upon the kilowatts of energy purchased, and a state membership tax of ten dollars per 100 members, or fraction thereof.

Central Pennsylvania Rural Electric Cooperative Association
Parkers Landing, Pennsylvania

The cooperative's office building.

View of the front of the building in which the cooperative is housed.

CENTRAL PENNSYLVANIA RURAL ELECTRIC COOPERATIVE CORPORATION
Parkers Landing, Pennsylvania

REA - 10 - OP
Project - 425 miles
Lines in Armstrong, Butler, and Clarion Counties
Allotment: $447,600 - July 24, 1937

Pennsylvania - 17
1864 customers

History

The project is located in the northern tip of Armstrong County, along the Clarion River in the Allegheny foothills. It is the most recently formed of all the cooperatives in Pennsylvania. However, the recency of formation must not be misconstrued to mean that little work was done upon the project prior to incorporation. A tremendous amount of energy was spent by Mr. E. W. McDonald, present secretary-treasurer of the project, Mr. R. C. Dixon, and Mr. C. T. Smith, president and vice president of the cooperative respectively. Together these men canvassed the area to ascertain the possibilities of initiating electricity in this district. They organized and spoke at meetings aiming at promotion of the project. During the latter part of 1936, throughout 1937, and up until January 1, 1938, these men gave of their time and energy unsparingly, receiving little pecuniary remuneration. The project was incorporated on August 6, 1937, after a year of promotional and organizational work. Service was to have begun in April, 1938, when 1500 farms were to have been energized. While not all the customers will be given electricity immediately, 2500 customers will be served when the lines are completed. Besides the hundreds of farms which will receive electric energy, a number of villages are to be served by the cooperative. Among these are: Nickleville, West Freedom, West Montoray, Dutch Hill, Tar Town, Turnipole, Frogtown, Adrian, Sharret, Fertigs, Van, Fern, Six

Points, Boullion, Rockland, Kinnerdell, and Smith Corner. From the standpoint of the number of customers served this cooperative is one of the largest in Pennsylvania. There are in the three counties, parts of which this cooperative will serve, approximately 8517 farms. The Southwest Central Rural Electric Cooperative Association is also serving customers in Armstrong County. It is estimated that the Central Pennsylvania Rural Electric Cooperative Association will serve between twenty and twenty-five percent of the farms in the tri-county district.

Need

The need for rural electrification in this section of Pennsylvania is particularly marked. Many of its farms lie in the deep valleys between mountain ranges and are inaccessible at certain times of the year. The coming of electricity will have great social value as well as economic value to these people. Then, too, there are many small hamlets containing between thirty and fifty homes, which are entirely without electricity. Even the suburban area surrounding the fair sized city of Butler, the county seat of Butler County, is without electric service.

Management

The policy forming board of directors is made up of those men who were active in the promotional work of the cooperative. They hold their present positions because the incorporators become the first board of directors under Pennsylvania's "Electric Cooperative Act". Thereafter, the members of the board of directors are elected by the members of the cooperative at an annual meeting. The directors are given only a small sum for attendance at each meeting, plus a small mileage allowance for transportation to and from meetings. The amount of this compensation is

established by REA. The members of the board of directors are as follows:

Officers: R. C. Dixon - President
C. T. Smith - Vice President
E. W. McDonald - Secretary-Treasurer

Directors: W. P. Snyder
C. S. Smith

Mr. C. H. Smith, of Parkers Landing, formerly of Meadville, Pennsylvania, was elected project superintendent by the board of directors, and is responsible to them alone. Smith is credited with starting the first rural electric cooperative in Pennsylvania, having been instrumental in the formation of the Northwestern Rural Electric Cooperative Association at Saegertown, Pennsylvania. He was formerly an electrical contractor, well qualified as far as electrical knowledge is concerned, for the position he now holds. Smith is one of two highest paid electric cooperative managers in Pennsylvania, receiving $200 per month, plus a small allowance for miles traveled upon cooperative business. The tremendous amount of labor required to organize the project upon a working basis is evidenced by the 36,000 miles Mr. Smith drove to make this project an accomplished fact. This association has several other employees besides the manager. The secretary takes care of all the correspondence and recording of easements. Later when the project is energized, it will be her duty to take care of the bills as they come into the office. Four right-of-way men were also employed. Their duty was to obtain easements from the various landowners for the passage of the electric lines across the various parcels of land.

Construction

The Gibbs-Hill Company of New York City was retained as the electrical

engineering firm in charge of surveying a proposed pole route and drawing maps of the territory. The construction work is to be done by the Miller-Baxter Company, Incorporated, Indianapolis, Indiana, who submitted the lowest competent bid for the job.

Obstacles

The obstacles confronting the organization of this cooperative were many. The people of this area had petitioned the private electric utilities for electricity a number of times, but each time the rates required by the private utility were so high that the farmers could not afford to pay them. However, as soon as the cooperative began to function, the West Penn Power Company, which is supposed to serve this territory, began to build "spite lines" into the proposed area of the cooperative. This company succeeded in erecting eighty poles before the cooperative could summon the Public Utility Commission to order the West Penn Power Company to "cease and desist" from the practice. Not a single prospective customer along the line under construction by the private utility was asked to purchase electricity. Another difficulty presented itself to the Central Pennsylvania Rural Electric Cooperative. The West Penn Power Company, a subsidiary of the American Water Works and Electric Company, demanded sixteen mills per kilowatt from the cooperative for the purchase of wholesale power. The cooperative then filed a petition on October 22, 1937 with the Public Utility Commission to force the private utility to give a wholesale rate of ten mills per kilowatt. After several conferences, the power company gave an eleven mill per kilowatt rate to the cooperative. This rate was satisfactory to both parties, and the West Penn Power Company assured the Public Utility Commission that the

1.1¢ rate would be given to any cooperative organized within its territory.[43] Besides having difficulties with the private utilities, the cooperative had several other elements to combat. While the attitudes of the merchants, bankers, and newspapers were favorable to the project, considerable opposition developed from the Republican Party. This section of Pennsylvania is predominantly Republican and the opposition was keenly felt. Many opposed the project because they feared it to be a "brain child" of the "New Deal".

Policies

This cooperative association has established several rules and policies for its guidance. Each member is required to purchase one, and only one, share of five dollar stock. Payment for the stock may be deferred until the prospective member has signed a contract to take electricity. When the allotted wiring loan is received from REA, the cooperative will loan only a certain amount, as yet not determined (March, 1938), to each applicant for five years at six percent per year. An amortization policy has been set up. Loans from the REA are to be provided for in the minimum monthly bill. If any profits are made over the amortization rate, the profits are to be distributed by reducing the minimum monthly bill. A definite policy has been established as to the payment of monthly bills. Although definite times have not been set, it will be the policy of the cooperative to add a penalty charge if the bill is not paid within a certain period. After another period of time has elapsed,

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43. While this rate difficulty was under consideration, the cooperative considered using current from the municipal plant in Grove City, but was unable to complete negotiations.

probably two weeks, and the bill remains unpaid, the electricity will be disconnected.

Uses

The people in this area plan to use electricity in many ways. After electric lights have been installed, their first desire is for electric pumps to relieve themselves from the drudgery of carrying water. Their next desire is for modern plumbing equipment. Many of the modern conveniences such as a radio can wait as far as these people are concerned, as long as they can be relieved of their heavier burdens first.

General

This project, serving four customers per mile of line, is planning to build its lines for slightly less than $1000 per mile. The association is to own and will install all meters free of charge. Cooperative loyalty is very strong in this group, although at first the people were a little skeptical because of the newness of the idea. The cooperative will pay a general property tax upon the land owned where the substation is to be constructed. It will also be required to pay a state membership tax of ten dollars for every 100 members, or fraction thereof, and it will be required to pay a three percent federal kilowatt tax on the power purchased. This cooperative is following a practice of the private electric utilities known as "cream skimming". It is quite unintentional, however, on the part of the cooperative. It is said that as soon as the project is established upon a firmer basis, the more backward areas of the territory are going to be served electricity even though they do not have three customers per mile of line.

Sullivan County Rural Electric Cooperative Association
Forksville, Pennsylvania

The cooperative office building.

SULLIVAN COUNTY RURAL ELECTRIC COOPERATIVE ASSOCIATION
Forksville, Pennsylvania

REA - 10 - OP — Pennsylvania - 12
Project - 130 miles — 600 customers
Lines in Sullivan and Lycoming Counties
Allotment: $130,000
20,000 (Generating Plant) October 30, 1936

History

The Sullivan County Rural Electric Cooperative Association, the smallest electric cooperative studied, is located in the northeast central part of the state. The project was incorporated on December 14, 1936, after many months of promotional work upon the part of the present project superintendent. After dividing the project into units and forming organizations within each, a compact organization of all the units was formed. Mr. Francis Marquardt, however, was the intergrating force behind the cooperative, holding the project together during the days when it seemed impossible for the project ever to be a success. Most of the people served are mountain farmers, but there are also included several small villages with eight or ten homes in each. Some of these hamlets are Hillgrove, Estella, Shunk, Wheelerville, Barbours, and Ellenton. The cooperative had in April, 1938, twelve miles of transmission lines and one hundred twenty-five miles of distribution lines. One hundred customers are being served electricity out of a customer list of six hundred persons. The two counties, Sullivan and Lycoming, parts of which are served by the cooperative, have 3428 farms in all. It has been estimated that this cooperative serves, roughly, fourteen percent of all the farms in both counties.

Need

The farms in this vicinity are below the average for farms in Penn-

sylvania, and in some instances life is rather primitive. Electricity will have a great social value to many of these poor mountain farmers for often they are isolated for months at a time by the winter's deep snows.

Management

The cooperative is governed by a policy forming board of directors, thirteen in number, chosen annually by the members of the cooperative. The members of the present board of directors owe their positions to the fact that the incorporators become the first board of directors under Pennsylvania law. The directors receive $2.70 for every monthly meeting attended, the meetings being held the first Wednesday evening of every month. The following are the members of the board of directors:

Officers: Barnard Marshall, President
Frederic Rogers - Vice president

Directors: Lynn Carpenter
Bernard Broschart
T. C. Lewis
Chester Peterman
Blake Fitch
Harlan Bumnick
Elmer Maley
George Bahl
William Morgan
William Ryan

The project manager, Mr. Francis Marquardt, was elected by the board of directors and is responsible only to them. Besides the manager, the cooperative employes a bookkeeper and a lineman. These three, manager, bookkeeper, and lineman receive a total salary of $250. Mr. Marquardt is one of the two cooperative managers in Pennsylvania who is a college graduate and has gained practical experience in the field of electricity. A lawyer was retained temporarily during the construction period by a retainer fee of $750.

Construction

Louis T. Klauder of Philadelphia was the electrical engineer retained by the cooperative to make maps of the territory and to survey the most feasible pole route. After competitive bidding for the construction of the lines, the contract was awarded to Hess and Barton, Incorporated, Pittsburgh, Pennsylvania At the peak of construction, sixty local men were employed. None of these men were relief workers. They worked an eight-hour day and a five day week. The wages ranged from forty cents per hour for day labor to ninety cents per hour for skilled workmen. These men were all registered under the Social Security Act, Workmen's Compensation Laws, and the Accident Insurance Laws.

Obstacles

This cooperative had many difficulties to overcome. Because of its small size, it could not fight as vigorously as could a larger cooperative. The most serious obstacle thrown in the path of the association was the propaganda campaign conducted by the Northern Pennsylvania Power Company. This utility company spread propaganda to the effect that the cooperative idea was merely a "New Deal" scheme for government ownership of the farms of the nation. The farmers were made to believe that their farms would be confiscated if they joined the cooperative. Another bit of propaganda the power company put forth was the idea that the cooperative was a mutual society, and as such the members would be held individually responsible for the debts of the association. The cooperative also had difficulty obtaining a reasonable wholesale rate from the power company.

Policies

The Sullivan County Rural Electric Cooperative Association has set up definite policies and rules by which it is governed. Membership is gained by purchasing a share of five dollar stock in the cooperative. Any member may purchase any number of shares he desires. The amortization of the REA loans is to be taken care of in the minimum monthly bill. If there are any profits, they will be distributed by reducing the minimum monthly bill. Bills are not discounted for prompt payment but a penalty charge is added after a certain period of time if the bill remains unpaid. Current is disconnected only as a last resort and then only at the discretion of the manager.

Uses

Although the average annual income of this section is the lowest of any of the seven areas included in this survey, the cooperative members have purchased many of the necessary minor appliances, and are buying all the larger appliances that they can afford. Of the major appliances, the electric pump and milk cooler are in greatest demand.

Extensions

The cooperative lines were built entirely by contract. Extensions are being planned and will be built by force account.

General

The cooperative owns and installs all meters free of charge. Ninety-six percent of the farmers in this territory own their own homes. The owners of the four percent of tenant farms or dwellings are also electrifying them. The project, with four customers per mile of line, cost $900 per mile to construct. The attitude of the different economic and polit-

ical groups for the most part was excellent. The merchants, newspapers, and bankers favored the idea, while only faint mutterings were heard from the Republican Party. One of the strongest selling points used in canvassing the area for members was the idea that everyone in the area would pay the same rate for their electricity they used. In this community, as in practically all rural communities in Pennsylvania, the rate schedule for individual customers varied according to the cost of miles of line which they happened to be living on. Thus, each customer, except those on the same mile of line would be paying a different price for the electricity used. The board of directors obtained the 600 easements necessary to construct the line. This cooperative is fortunate in having a second source of power upon which to draw. It is a small hydroelectric plant capable of generating 150 to 200 K.V.A. on a yearly basis, located at Hillsgrove, near Forksville. This plant has never failed to give at least four hours service daily except in extremely dry years. This plant will be used as a "booster" — that is to say, take care of the peak demand at certain hours in the evening. It is also to be used as a "back feed" in case of interruption of service from the present substation. This cooperative pays a ten dollar state membership tax for every 100 members, or fraction thereof, a three percent federal energy tax upon the kilowatts used, and general property tax on the ground upon which the substation is built.

The Claverack Cooperative Association
Towanda, Pennsylvania

The building in which the cooperative is housed.

Mr. Jakway, project manager, in the cooperative office.

View of office showing maps of the territory served by the cooperative.

THE CLAVERACK RURAL ELECTRIC COOPERATIVE ASSOCIATION
Towanda, Pennsylvania

REA - 10 - OP Pennsylvania - 14 - Bradford
Project - 214 miles 625 customers
Lines in Bradford County
Allotments: $210,000 - October 20, 1936
52,000 - December, 1937
24,450 - August 8, 1937 (wiring)
Wiring loans advanced to 163 individuals.
The project was increased to 251 miles with 700 customers.
Originally incorporated November 14, 1936.
Incorporated as a nonprofit corporation October 25, 1937.

History

Bradford County, which has proved to be a very fertile field for rural electrification, is located in the northeast central part of Pennsylvania, along the New York State border line. Many of its inhabitants are of Pennsylvania Dutch ancestry — a very business-like, solid, substantial type of citizen, who when once sold upon the cooperative idea, is intensely loyal to the project.

When Clarence E. Jakway read a notice in the local newspaper announcing a rural electric meeting to be held at Laporte, Bradford County, on July 28, 1936, his keen mind began to mull over the notice, and he asked himself if electricity wouldn't be a fine thing for the rural areas of the county. It was not long before his thoughts became actions. He called upon several farmers in the vicinity of Towanda whom he thought might be interested. They were enthusiastic. The result was that Jakway, Charles Patterson, and Edward Peterson went to the Laporte meeting and there heard J. Warner Pyles, REA field representative, explain the plan in a general way. The following Sunday, Jakway went to the Dairymen's League Creamery in Towanda and talked to John K. Stevens of Standing Stone, and then went to see Norman White of Mercer and C. B. Eastabrook and son

of South Hill. Stevens was "sold" on the idea and called a meeting in the Standing Stone grange hall early in August. Jakway explained the plan at the meeting at which about fifty persons were present. Since nothing else was available, they used the back of a large envelope to sign upon, signifying their intention of going along with the plan.

The news was not long in spreading and the people demanded more meetings. Another meeting was held in the Christian Church at Franklindale where the plan was received enthusiastically. Since no contract had arrived from Washington, the participants in the meeting signed a blank piece of paper without waiting for the printed forms to arrive. Many more meetings were held at different points in the territory, and everywhere the plan was applauded. At each of the meetings three to five volunteers were obtained for the purpose of canvassing the rest of the community to get signers for electric current. In a very short time, these committees had the signatures of 652 people. Then came a general meeting in the Court House in Towanda, with Ernest Collins, a field representative of REA, as the speaker. The survey sheets from Washington were provided, each prospective customer signifying on these what he probably would do with electricity were it made available to him, and among other things, agreeing to grant an easement or right-of-way across his lands upon which the pole line was to be built, providing the proper arrangements were made to receive a loan from the REA. The different committees which had been working up to this time had been busy only in their respective townships. After the townships had been completely surveyed, the people in these subdivisions held an election and picked three of their number as a committee to act in their behalf. These committees from each township

met and elected a permanent board of officers and directors. At the same time, the name Claverack Cooperative Association was decided upon. This name was the name of an old township from which a large section of central Bradford County had been taken many years previously. The Board of Directors elected is as follows:

Officers: E. L. Patterson - President
Ross H. Miller - Secretary
Glenn C. Allen - Treasurer

Directors: Rollin H. Blair
Bert Allis
Paul Gillette
Harlan Schoonover
Ray Yard
John Doane
A. B. Cox
Bryan Cooper
Smith Van Cise
Judson Bailey

The founder of the movement, Mr. Jakway, was elected manager by the board of directors and is responsible only to them. The first thing he was instructed to do was to make a map of the territory showing the locations of the prospective customers, estimating the number of miles of line necessary, and to present this to the REA in Washington, applying formally for a construction loan. This information was sent out on October 2, 1936. When a week passed without a reply, Washington was called by telephone and arrangements were made for a meeting with REA officials there on October 18. A meeting of all those interested was called at Towanda, and volunteers were asked to donate their time, expenses, and automobiles to go to the national capital to see if the matter couldn't be hurried along. Twenty-six responded. The delegates were graciously received by the REA in Washington. As a result of the meeting, the REA

announced a loan of $210,000 allocated to build 214 miles of rural electric lines. From this point on things moved rapidly. Great assistance was given to the project by the national administrator, John M. Carmody, who was born near Towanda.

L. T. Klauder of Philadelphia was employed as the consulting electrical engineer, his duties consisting of laying out a complete modern electrical distribution system throughout the area. The law firm of Lilley and Wilson of Towanda was chosen to guide the new enterprise in all legal matters. The Citizens National Bank of Towanda was chosen to be the depository for all the cooperative money. All of these steps had to have the approval of REA. With the money available for lines and a tentative idea as to where they would be built, it became necessary to get the easements or rights-of-way from the local people upon whose land the lines were to be built. After a suitable right-of-way had been approved by Washington, the cooperative again fell back to the original committees in the various townships. By getting easements in this manner, the task was accomplished in the record breaking time of two weeks. The next step was to get someone to build the lines. It was the duty of the electrical engineer to figure out the number of poles, various sizes of wire necessary, switching devices, substations, and all other appurtenances necessary for construction. This was written up in specification form and submitted to the various electrical contractors for competitive bidding. Hess and Barton, Incorporated, Pittsburgh, was awarded the contract on January 12, 1937. The first pole was set in April, 1937, and part of the line was energized in October, 1937.[44]

44. Much of this history was obtained from The Daily Review for November 27, 1937. This is a newspaper published daily in Towanda, Pennsylvania.

Need

This area is a rich field for electricity. The people have petitioned the power utility several times for electric service, but the rates asked were always prohibitive. The great need was for water systems as ninety-five percent of the people were without running water.

Management

Mr. Jakway, the manager of the project, was trained in telephone and telegraph engineering. He receives a salary of $100 per month, plus a fifty dollar per month allowance for his automobile. The cooperative employes a bookkeeper who receives a monthly salary of $100. The cooperative also employes two meter readers who work upon a commission basis. They receive 7.5¢ for every meter they read, plus five cents if they collect the bill on the same visit. The cooperative employes one skilled lineman to keep the lines in good working condition.

Construction

Eighty local men were hired to build the lines. None of the men used were relief workers. The wages paid were as follows:

40¢ per hour for day labor.
55¢ to 65¢ per hour for semi-skilled labor.
75¢ to 95¢ per hour for skilled labor.

These men completed 240 and 34/100 miles in one year, working an eight hour day and a forty hour week.

Obstacles

The Claverack Cooperative Association had several obstacles to overcome. The indifferent attitude displayed by the bankers, merchants, and newspapers was felt keenly. Another obstacle to surmount was the fear that the cooperative was a mutual society in which each member was held indi-

vidually responsible for the debts of the association. A third obstacle to overcome was the propaganda campaign conducted by the Northern Pennsylvania Power Company. This power company told the people that they were signing away their property for twenty years if they joined the cooperative. They also told the people that this was just a scheme by which the government would confiscate their property.

Policies

This cooperative has set up definite policies and rules which govern its actions. All customers must be members of the cooperative. To become a member each must purchase one, and only one, share of five dollar stock. Two loans have been received for wiring purposes thus far. One was for $1,718, while the other was for $1,650, making a total of $3,368. The cooperative establishes the price which the member is to pay an electrical contractor for wiring his buildings. The association then lends the member eighty percent of the cost up to a certain limit.

Uses

After the installation of lights, washing machines, and irons, the appliances most in demand are the electric pump, the electric milker and cooler, and electric refrigerator.

Rates

The power used by the Claverack Cooperative Association is purchased for resale from the Northern Pennsylvania Power Company, a subsidiary of the Associated Gas and Electric Company. The cooperative pays the power company on a demand and sliding scale. Ten mills are charged for the first fifty kilowatts purchased, plus a $1.25 demand charge. All kilowatts pur-

chased thereafter cost eight mills. The rates which the cooperative charges its members are as follows:

$3.25 minimum monthly bill allowing 40 kwh.
.045 per kwh - next 40 kwh.
.0225 per kwh - next 120 kwh.
.015 per kwh excess (except when an electric water heater is in use.)

Special rates are charged where an electric range has been installed. An eighteen dollar minimum charge has been established for churches, schools, grange halls, etc. There is no discount for prompt payment of bills, but there is a five percent penalty charge added if the bill is not paid ten days after billing. If the bill remains unpaid for sixty days, the power is disconnected.

General

The cooperative owns and installs all meters free of charge. The amortization of the loans from the government is provided for in the minimum monthly bill. The project which cost $950 per mile of line to build, has 3.4 customers per mile. There is practically no tenant farming as ninety-eight percent of the members own their own farms or rural dwellings. The cooperative pays three taxes: a general property tax on the land upon which the two substations are built, a ten dollar state membership tax for each 100 members, or fraction thereof, and a three percent federal tax upon kilowatts purchased.

CHAPTER III

SUMMARY AND CONCLUSION

The Rural Electrification Administration has been confronted with many difficulties. One of the greatest of these is the matter of obtaining easements or rights-of-way necessary to construct the lines. The private utilities for the most part used the highways and are not required to obtain easements from the abutting property owners. The power utilities also possess the right of eminent domain. The cooperatives present a different problem. More easements are necessary because a large mileage of line goes across private lands. Often easements are required from abutting property owners along highways. None of the cooperatives possess the right of eminent domain.

A second difficulty almost every REA project encountered is the propaganda campaigns conducted by the private power utilities against cooperative undertakings.

The private electric utilities also have found another weapon with which to combat the cooperatives. This is the practice known as "spite lines". The private utility, as soon as it hears of the formation of a cooperative project, immediately builds lines into the cooperative's proposed territory, or uses tactics known as "blocking". By this second type, the method is to preempt strategic right-of-way, making it impossible for the project to get through to serve prospective customers further on.[45]

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45. Report of Rural Electrification Administration, 1937, pp 36-37.

A fourth obstacle, which has retarded the program of the Rural Electrification Administration, has been the difficulty of obtaining reasonable wholesale rates. When the cooperatives were first formed wholesale rates as high as two and one-half and three cents were asked. These were later reduced until at the present time, the average rate for all the projects in the country is 1.25¢ per kilowatt.

The most keenly felt obstacle in the path of rural electric cooperatives has been the absence in most states of statutes permitting the formation of cooperatives or extensions of municipal lines beyond the city limits. Although eighty-five percent of the projects established under the REA program are cooperative undertakings, only eighteen state legislatures have met the growing demand for progressive cooperative legislation. Existing agriculture cooperative statutes have served in about half of the states. Other states do not have cooperative statutes at all, while still others are statutes that date back to the 1880's and have limitations which prevent their use for electric cooperative purposes.[46]

Who shall regulate the nonprofit corporations or cooperatives is another problem. The states have been divided as to who shall have jurisdiction over the rural electric cooperatives within their boundaries. The electric cooperatives established in Alabama, Arizona, Florida, Idaho, North Dakota, Ohio, South Carolina, South Dakota, and Wyoming are not under the jurisdiction of the Public Service Commission, or its equivalent whatsoever. The cooperatives located in Georgia, Maine, Pennsylvania, and Wisconsin do not come under the jurisdiction of the Public Service Commis-

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46. Ibid., pp 33-34.

sions, but these commissions have established a fostering attitude toward the undertakings in these states. Because of the scarcity of rural electric cooperatives, or because no occasion has arisen to test its jurisdiction, the following states and territories have set up no policy regarding rural electric cooperatives: California, Hawaii, Illinois, Missouri, New Hampshire, New Jersey, New York, Rhode Island, Texas and Utah. In four states, rural electric cooperatives are regarded as public utilities, and are subject to the same rule and regulations under the Public Service Commission's jurisdiction as are all electric utilities in the states. These states are Kansas, Kentucky, Maryland and Virginia. The Public Service Commissions of Michigan, Minnesota, Montana, Nebraska, North Dakota, and Oregon have jurisdiction over electric cooperatives in these states to the extent of setting up regulations regarding construction standards, etc. Four states, Arkansas, Indiana, Iowa, and Massachusetts have exempted their rural electric cooperatives from the jurisdiction of the Public Service Commissions except that they must obtain a certificate of convenience and public necessity from that body. The rural electric cooperatives are under the authority of an agency other than the Public Service Commissions in Louisiana and Vermont.[47]

Many criticisms have been levied against the Rural Electrification Administration. One is that the REA has been too heavy-handed with the small mutual telephone lines of the country. There are approximately 42,000 telephone systems in the United States, 36,000 of them being mutual companies. A mutual system may be characterized as one "which gives some-

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47. This material was obtained from letters received from forty-four states and territories.

one a few dollars a month to operate a mail-order switch board service from the larger company in the same general area."[48] The systems are not expertly built. Their lines are hung from trees, run along fence posts, and are placed upon anything which will bear their weight. Because of their construction they are improperly grounded. When the lines of the cooperative come along the stronger current completely drowns out the weaker current of the telephone line, making a steady hum in the telephone receiver. These mutuals are demanding funds from the REA to metalicize their lines to prevent the interruption of service. The case is pending in court now.

Other criticisms levied at REA claim that the organization increases executive power, making the Administrator almost a dictator responsible only to the President. The REA, it is charged, reduces state authority. "Through control over loans, REA may influence retail and wholesale power rates and thus diminish the regulatory authority of the states acting through their legislatures and utility commissions. Likewise, through stipulations as to the type of construction acceptable, a similar result may ensue."[49] That REA adversely affects private business has also been charged. Some fear that this is but a beginning of government ownership of the power industry in this country.

Whatever the difficulties to be overcome, or the criticisms levied against it, REA has done a good job. No one can estimate the economic

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48. Corey, Herbert. "Storm Clouds over the REA", Public Utilities Fortnightly, XXI, No. 9, April 28, 1938, 523.
49. Dow, E. F. "Federal Administration of Rural Electrification", The American Political Science Review, XXXI, December, 1937, 1111-1112.

and social value which will be occasioned by its intrusion in the rural electric field. When REA was established in 1935 only 10.9 percent of the farmers and rural dwellers had electricity. Today eighteen percent have that service. During its three years in existence, REA has built approximately 85,000 miles of rural lines and has reached 300,000 customers.[50] The 743,954 rural customers served in 1935 have increased to well over a million. Private utilities also have increased their rural electric line mileage under the impetus of the REA program.

Rural electrification has progressed more rapidly in Pennsylvania in the last three years than at any other time in its history. There were in operation in 1915, 15,000 miles of rural line serving between 45,000 and 50,000 farms and 150,000 suburban areas. Between 1927 and 1935, only 8,924 miles of rural lines were built.[51] Between January and October, 1935, 975 miles of line were built with the total for the year expected to reach 1100. The cost of this line per mile was $1,590.[52] This was the rural electrification record of the private power industry in Pennsylvania prior to REA.

In the two years the Rural Electrification Program has been at work in Pennsylvania, it has built, or will have built, by the end of 1938, 2,191 miles of rural electric lines to serve approximately 8,000 strictly rural customers. These lines cost less than $1,000 per mile to build. If more money were available, rural electrification would proceed at even a faster rate than it has now.

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50. Flynn, op. cit., p 46.
51. Rural Electrification News, I, No. 2, October, 1935, p 16.
52. Ibid., p 16.

In light of the facts presented, the Rural Electrification Administration is performing a task which will be of great social and economic significance. Never before has the farmer had such an opportunity to obtain electricity at a price which he can afford to pay as he has today.

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CASE STUDIES

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End of Title